

FIG. 1A

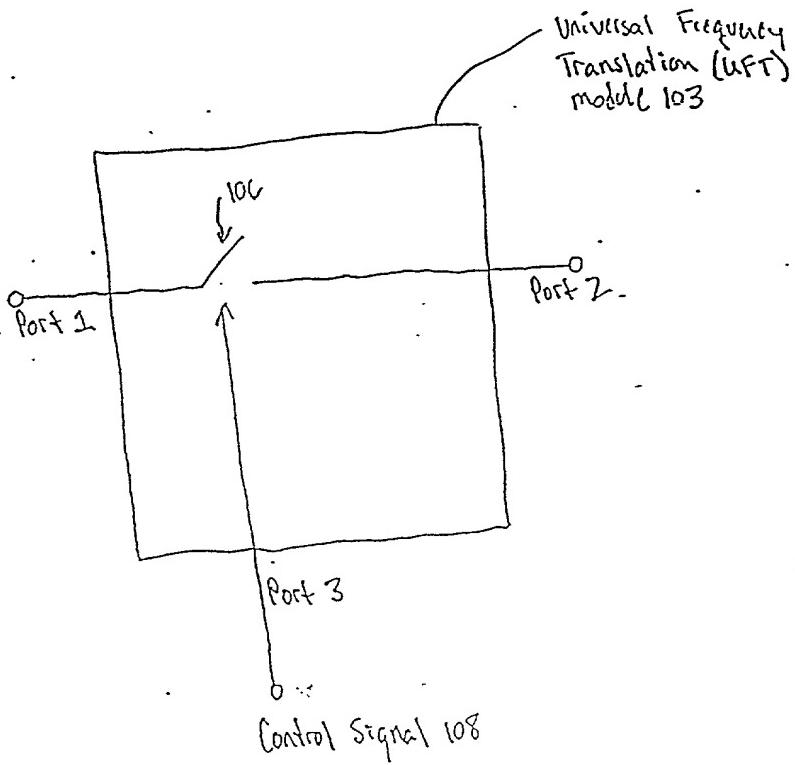


FIG. 1B

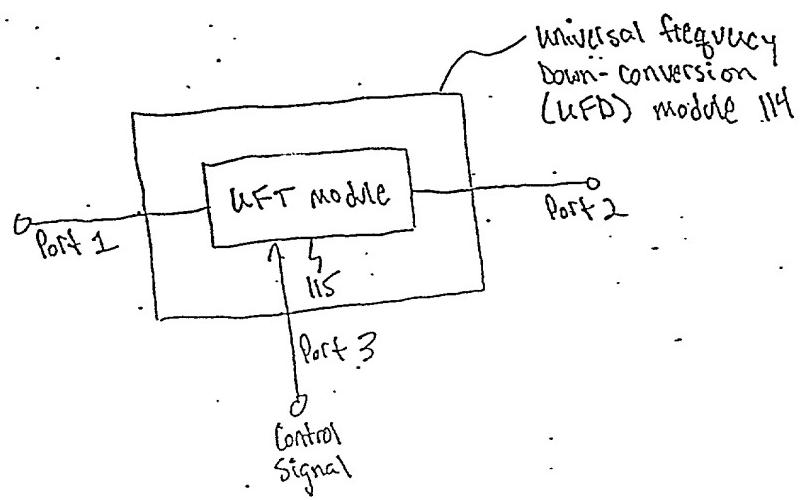


FIG. 1C

WA

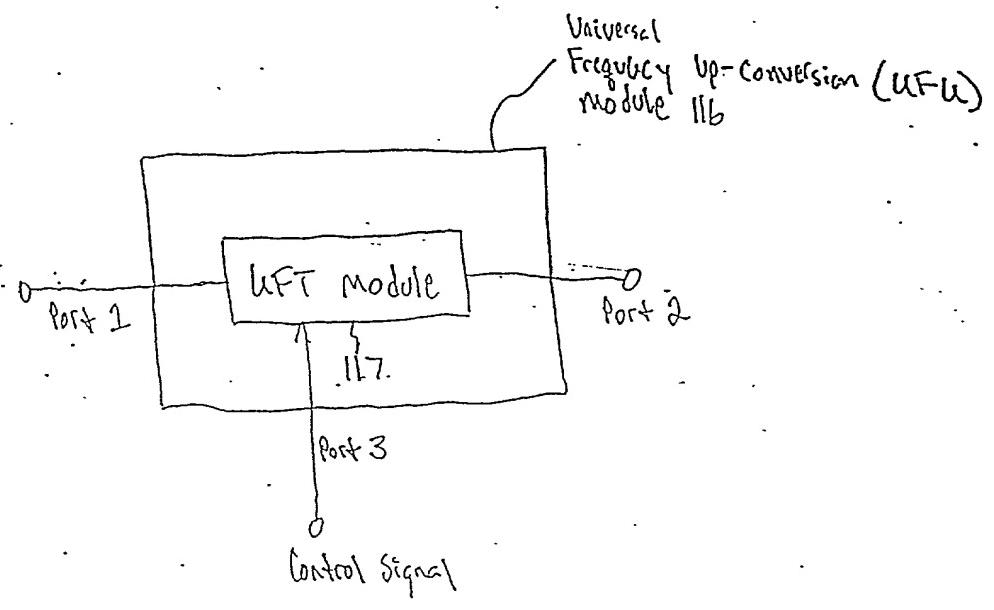


FIG. 1D

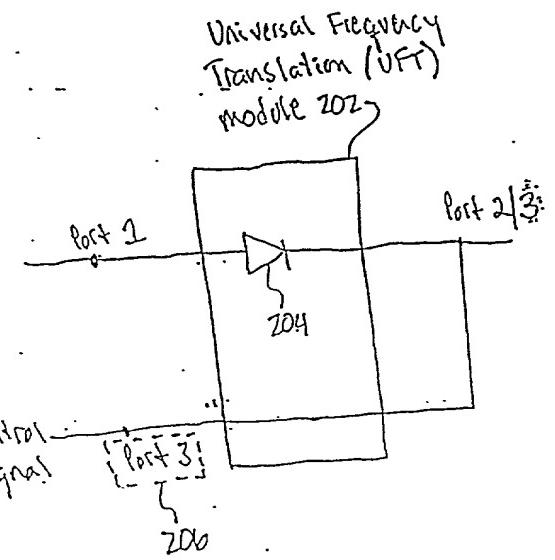
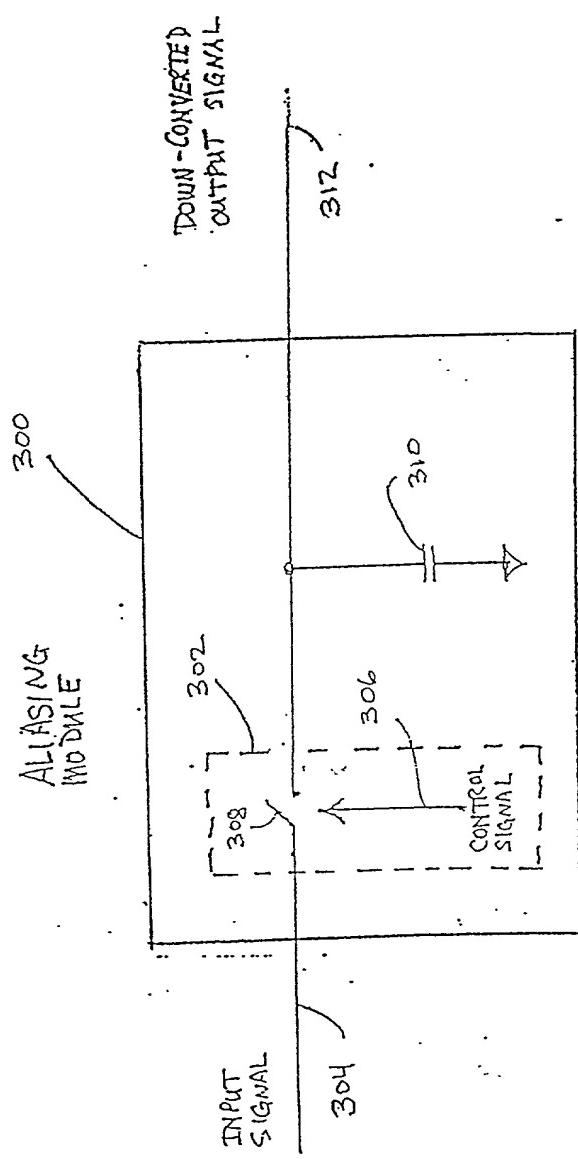
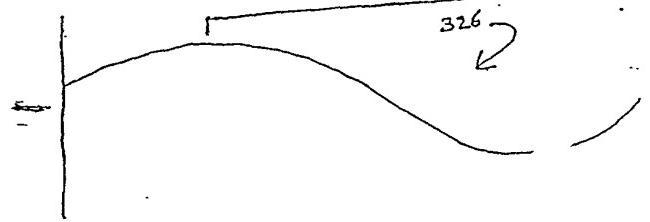
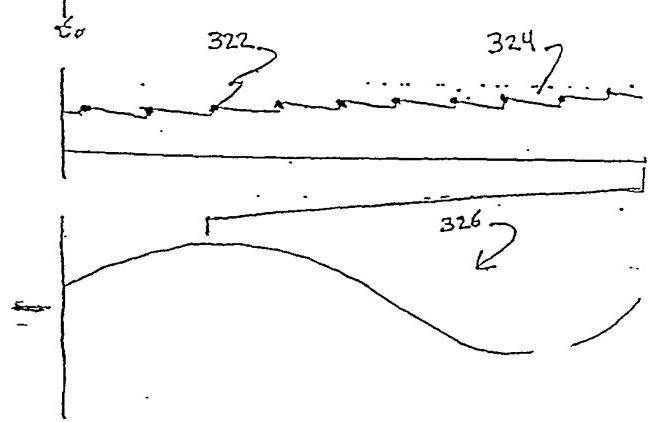
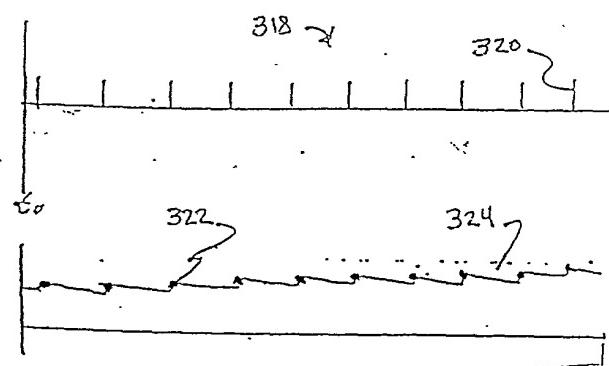
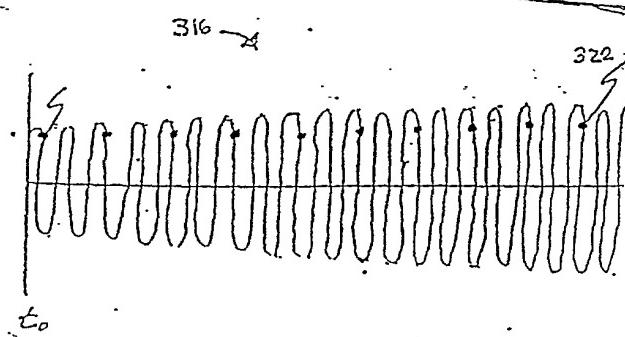
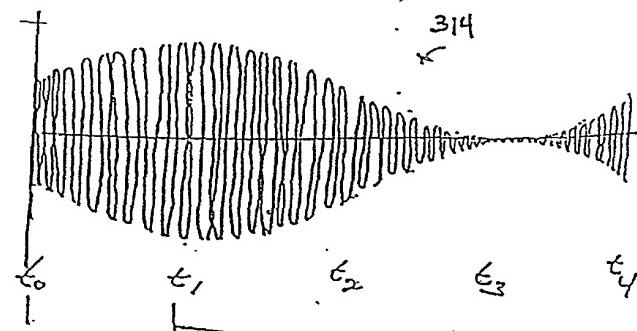


FIG. 2

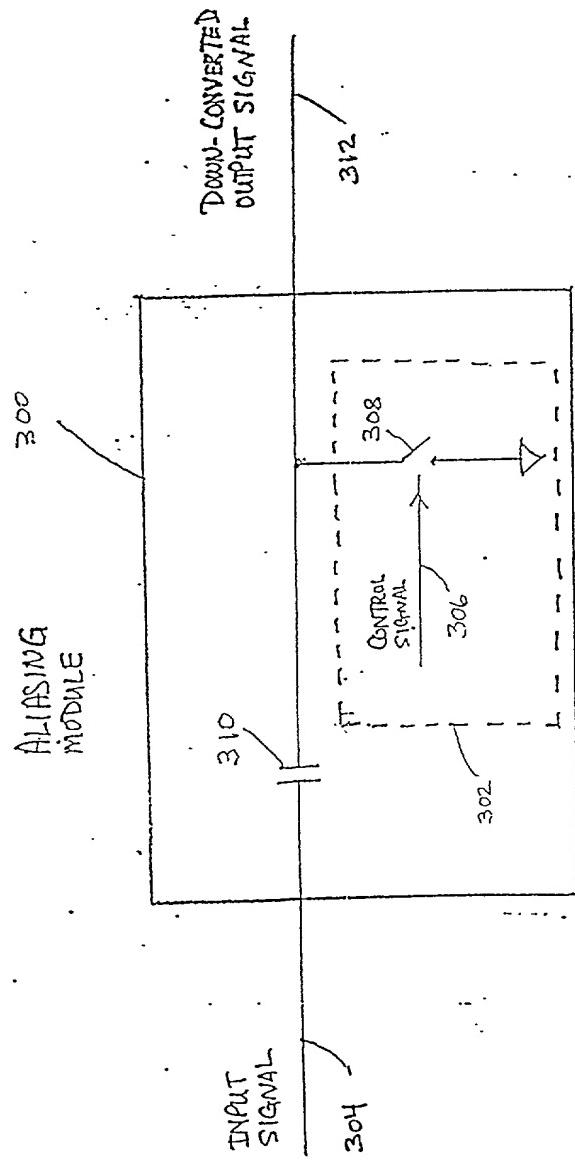
FIG. 3A





M

FIG. 3G



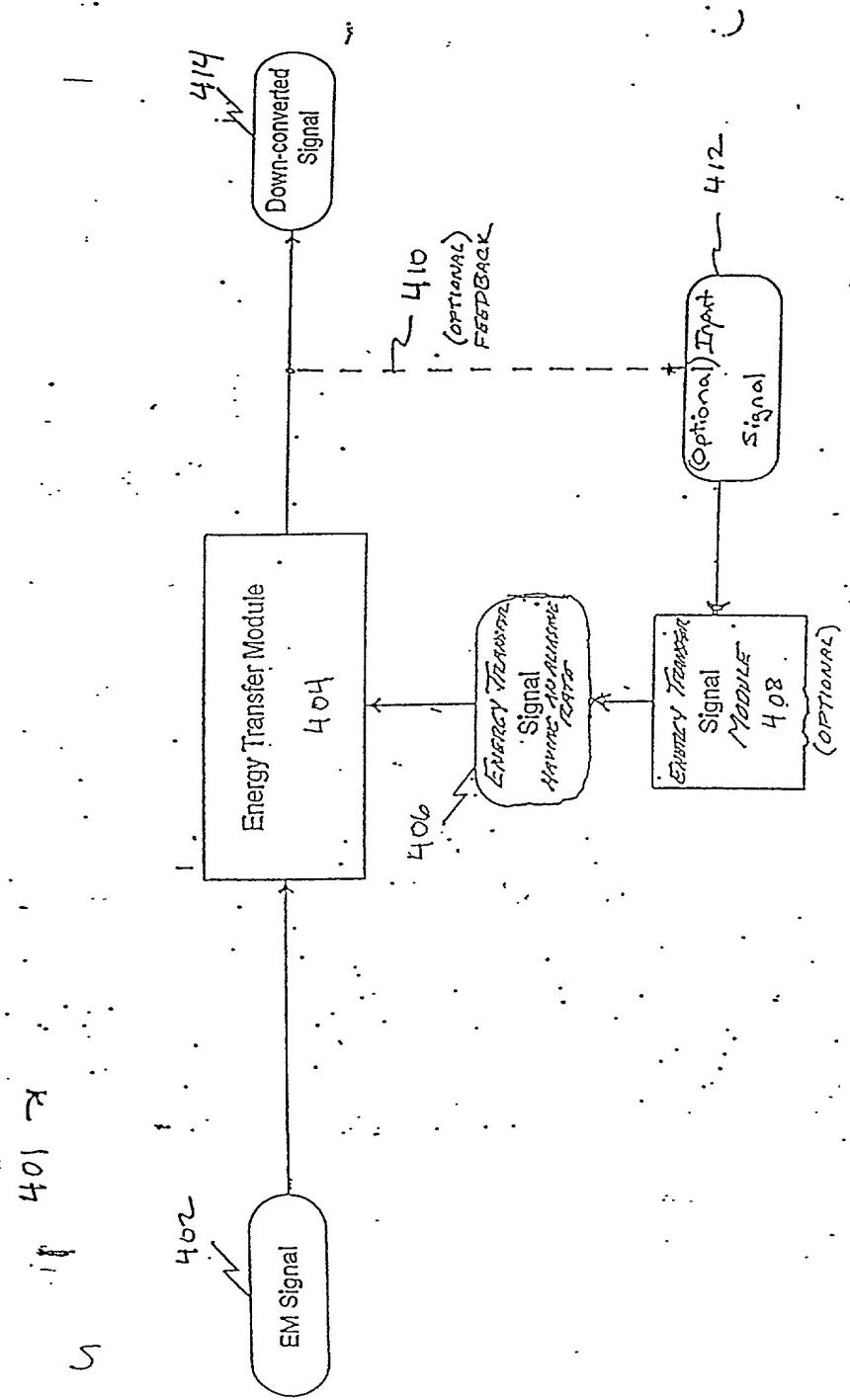


FIG. 4

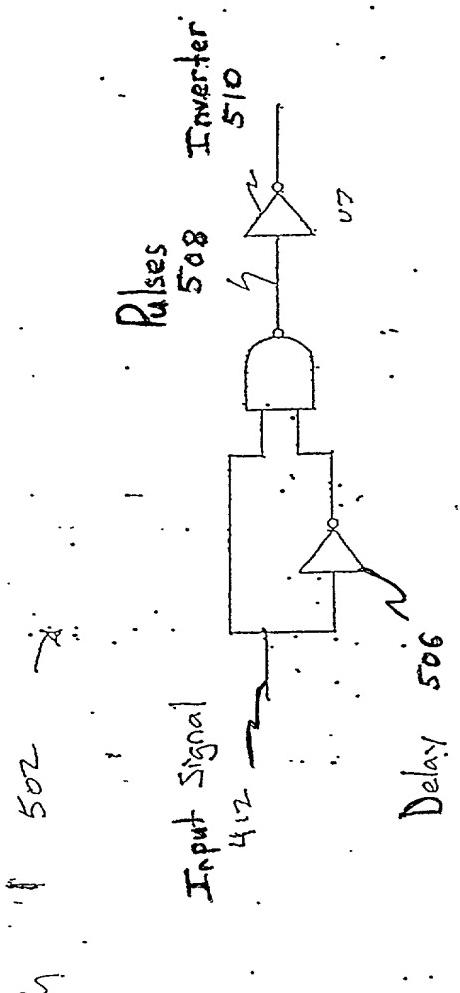


Fig. 5

092355851 025160

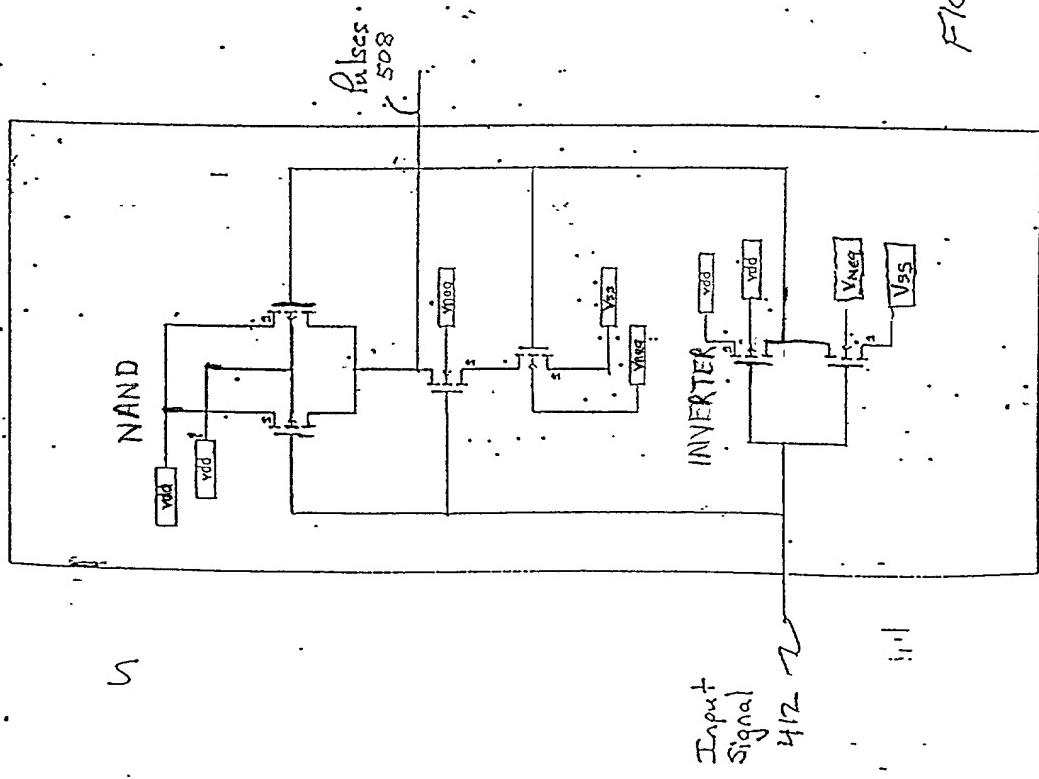


FIG. 6B

FIG. 6A

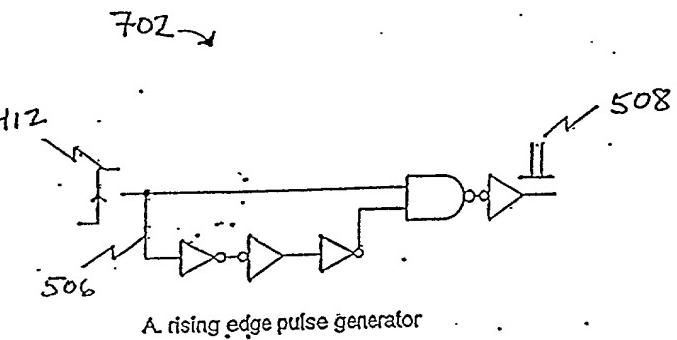


FIG. 7A

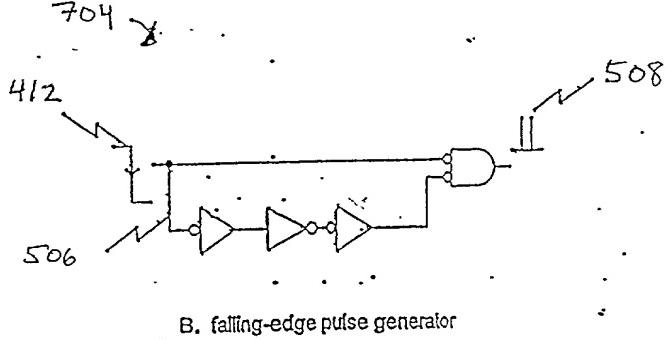


FIG. 7B

09355351 051603

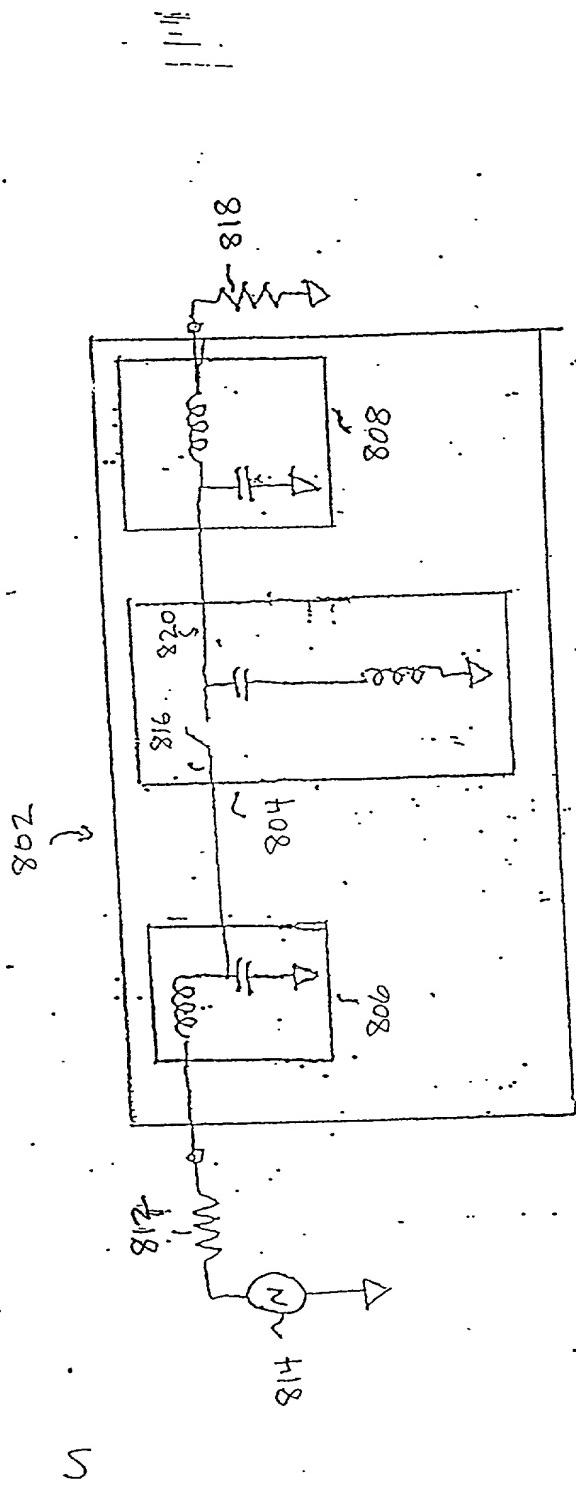


Fig. 8 - Impedance Matched Absorbing Module

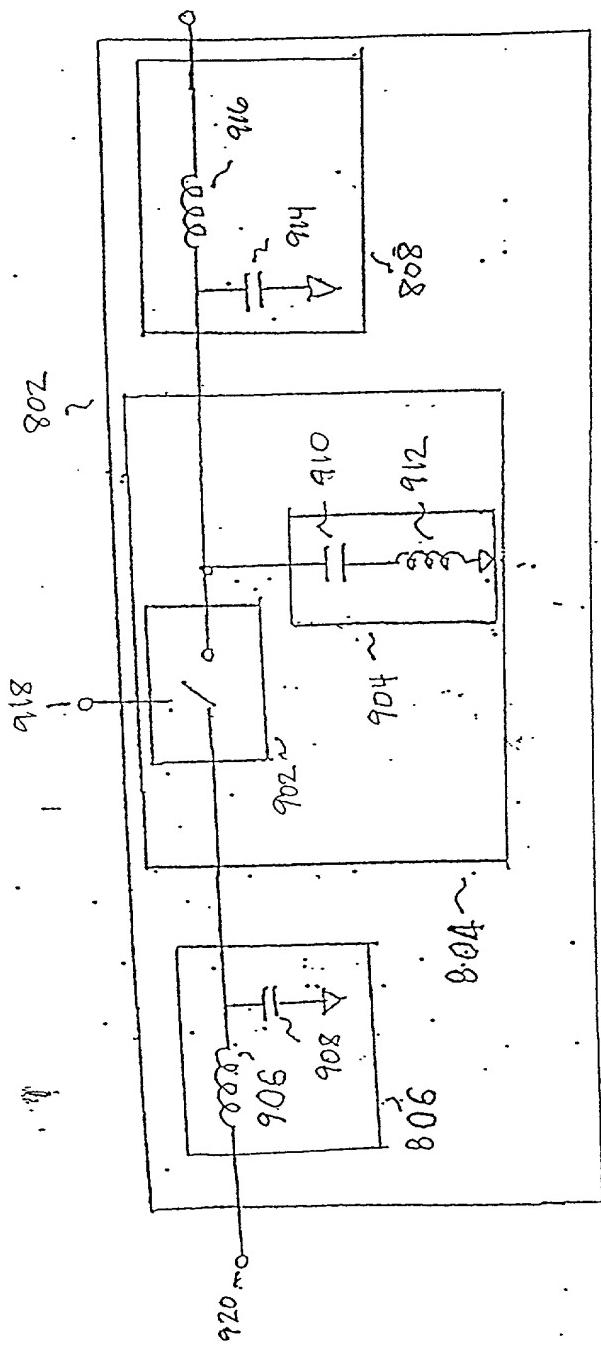
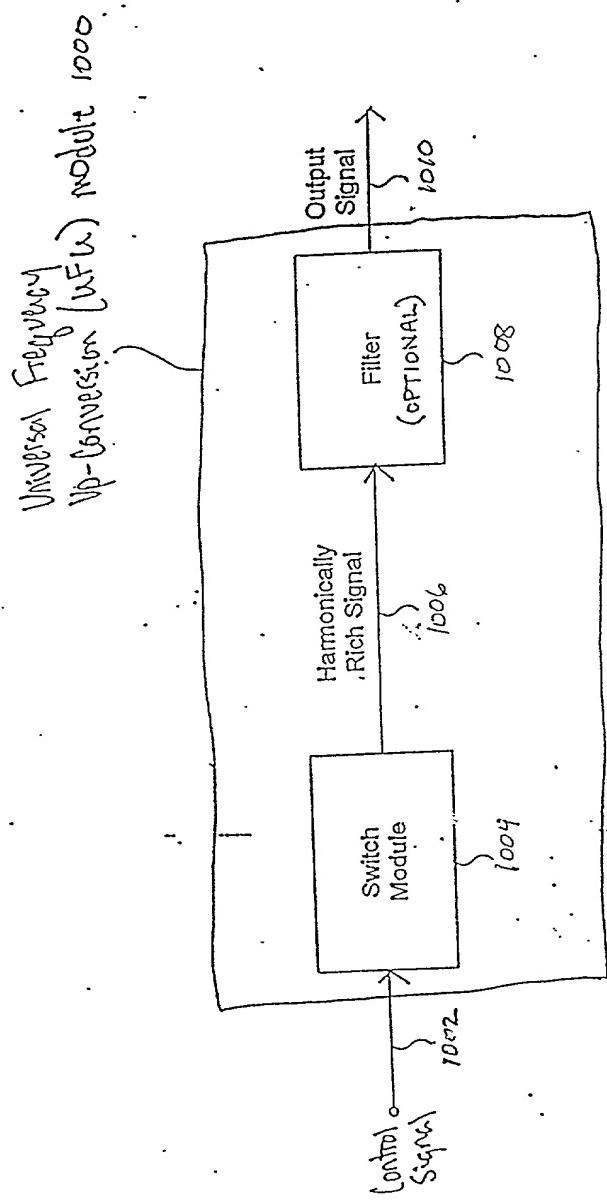


Fig 9 : Aliasing Module

FIG. 10



Universal Frequency
Up-Conversion (UFC) module 1101

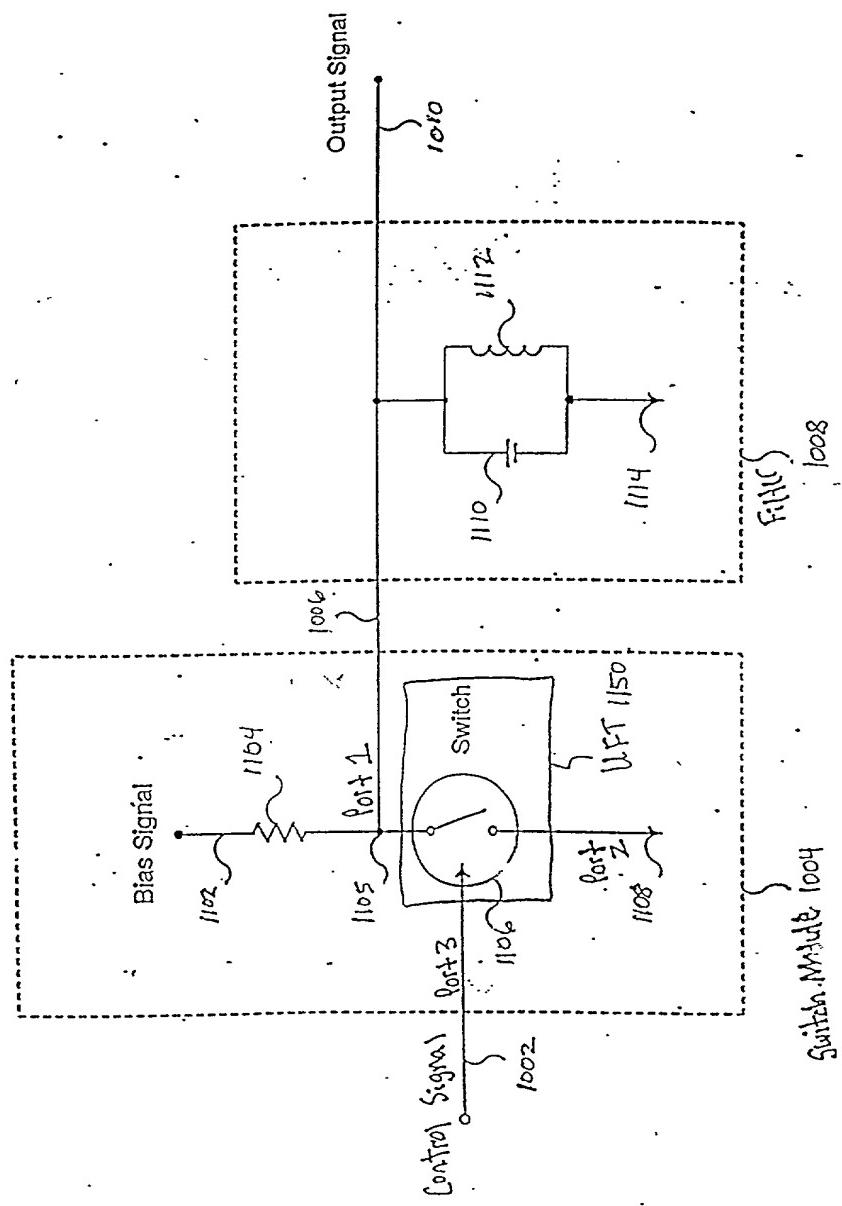


FIG. 11

0925555555555555

Universal Frequency
Up-Conversion
(UFU) Module 1200

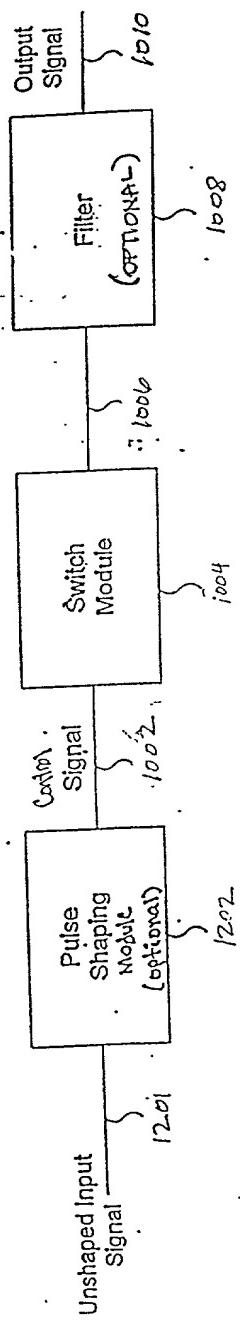


FIG. 12

09555851000000000000

INFORMATION
SIGNAL
1302

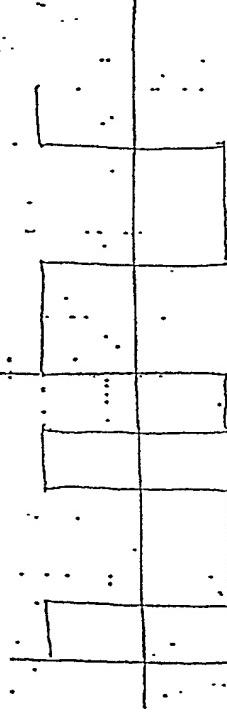


FIG. 13A

OSCILLATING
SIGNAL
1304



FIG. 13B

FREQUENCY MODULATED
INPUT SIGNAL
1306



FIG. 13C

HARMONICALLY
RICH SIGNAL
(SHOWN AS SQUARE WAVE)
1308

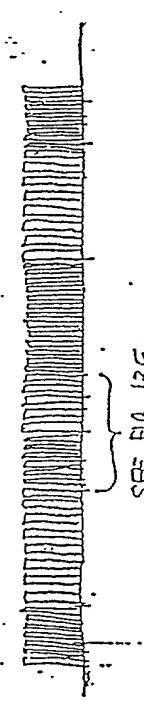


FIG. 13D

SEE FIG. 13E

FIG.
13

EXPANDED VIEW OF
HARMONICALLY RICH
SIGNAL 1308

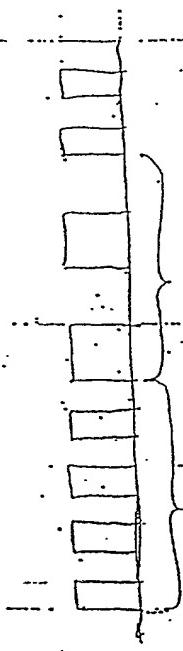


FIG. 1310

SEE FIG. 13F

HARMONICS OF
SIGNAL 1310
(SHOWN SEPARATELY)

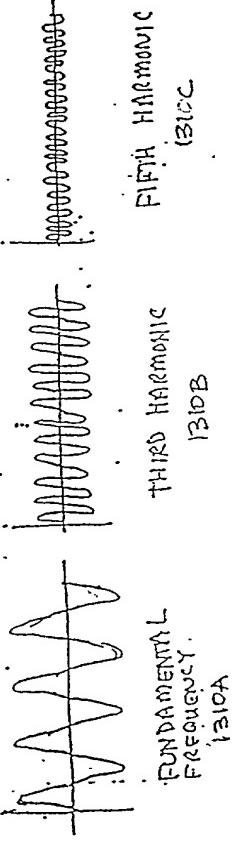


FIG. 13F

FUNDAMENTAL
FREQUENCY
1310A

THIRD HARMONIC
1310B

FIFTH HARMONIC
1310C

FIG. 13E

FIG. 13F

HARMONICS OF
SIGNAL 1312
(SHOWN SEPARATELY)

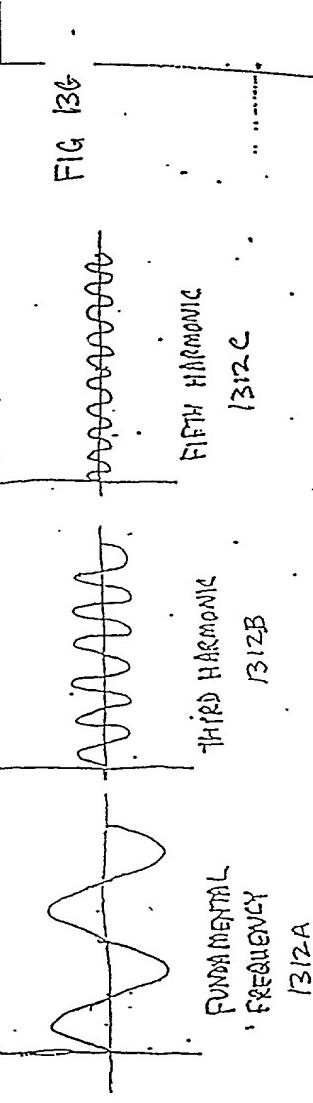


FIG. 13E

FIG. 13F

FUNDAMENTAL
FREQUENCY
1312A

THIRD HARMONIC
1312B

FIFTH HARMONIC
1312C

FIG. 13 (CONT)

00000000000000000000

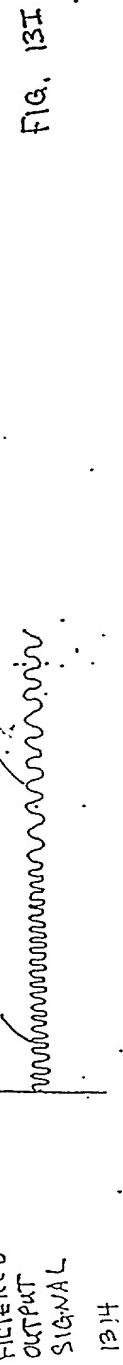
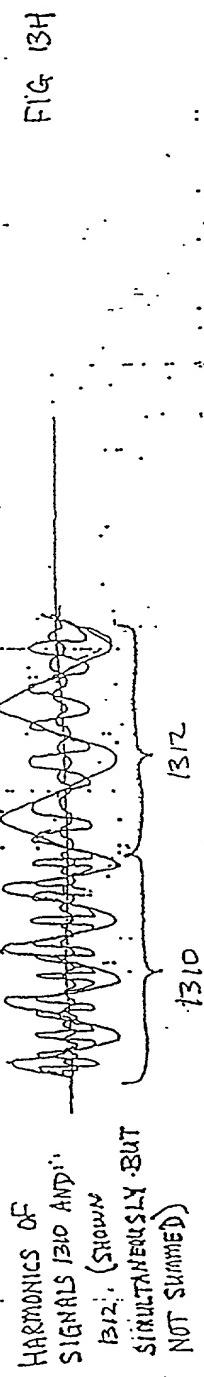


FIG. 13 (cont.)

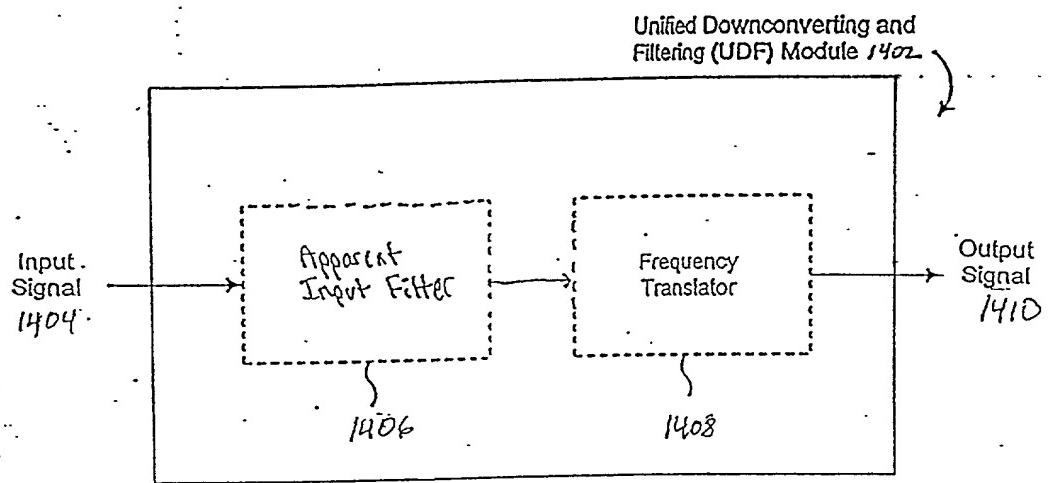


FIG. 14

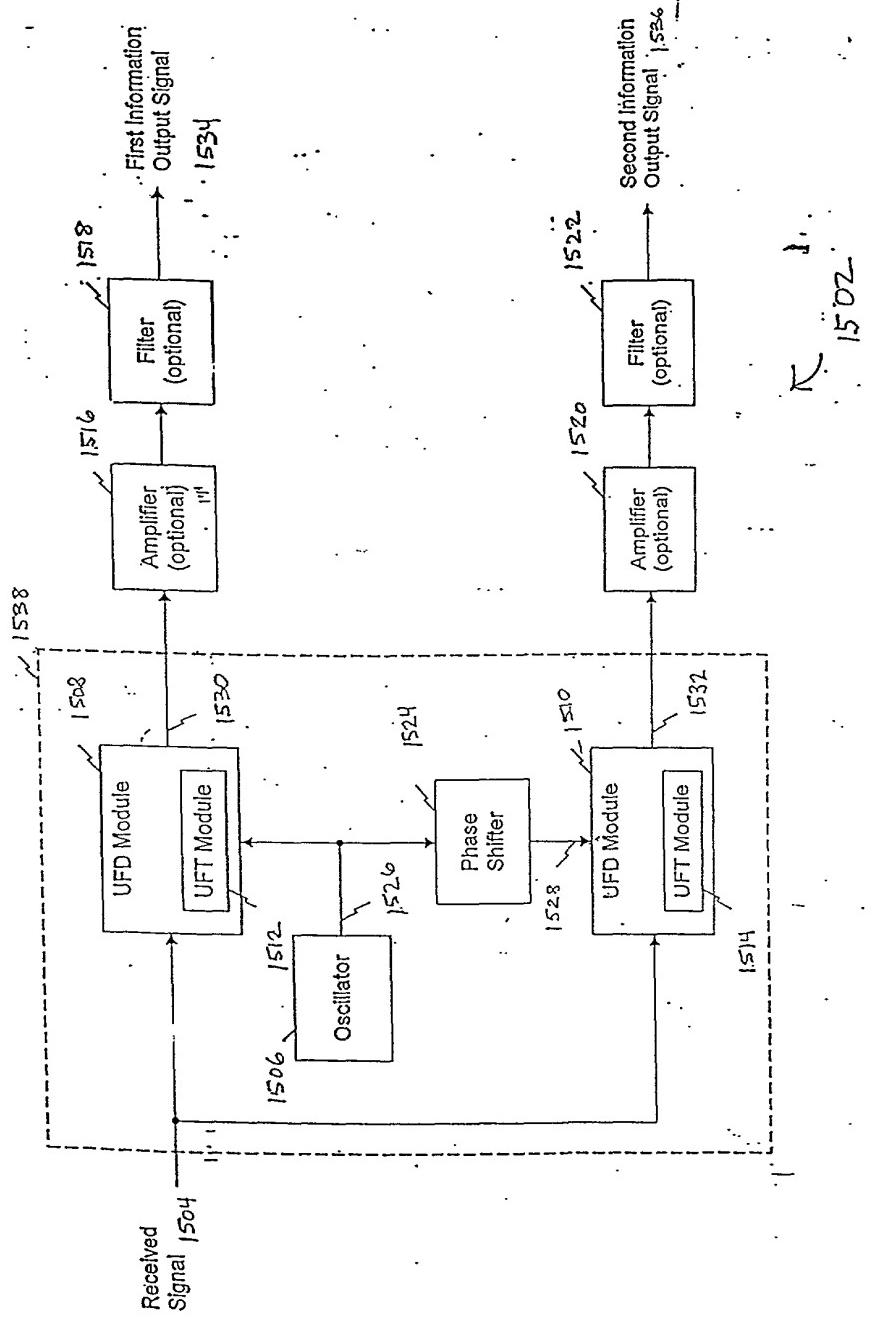


FIG. 15

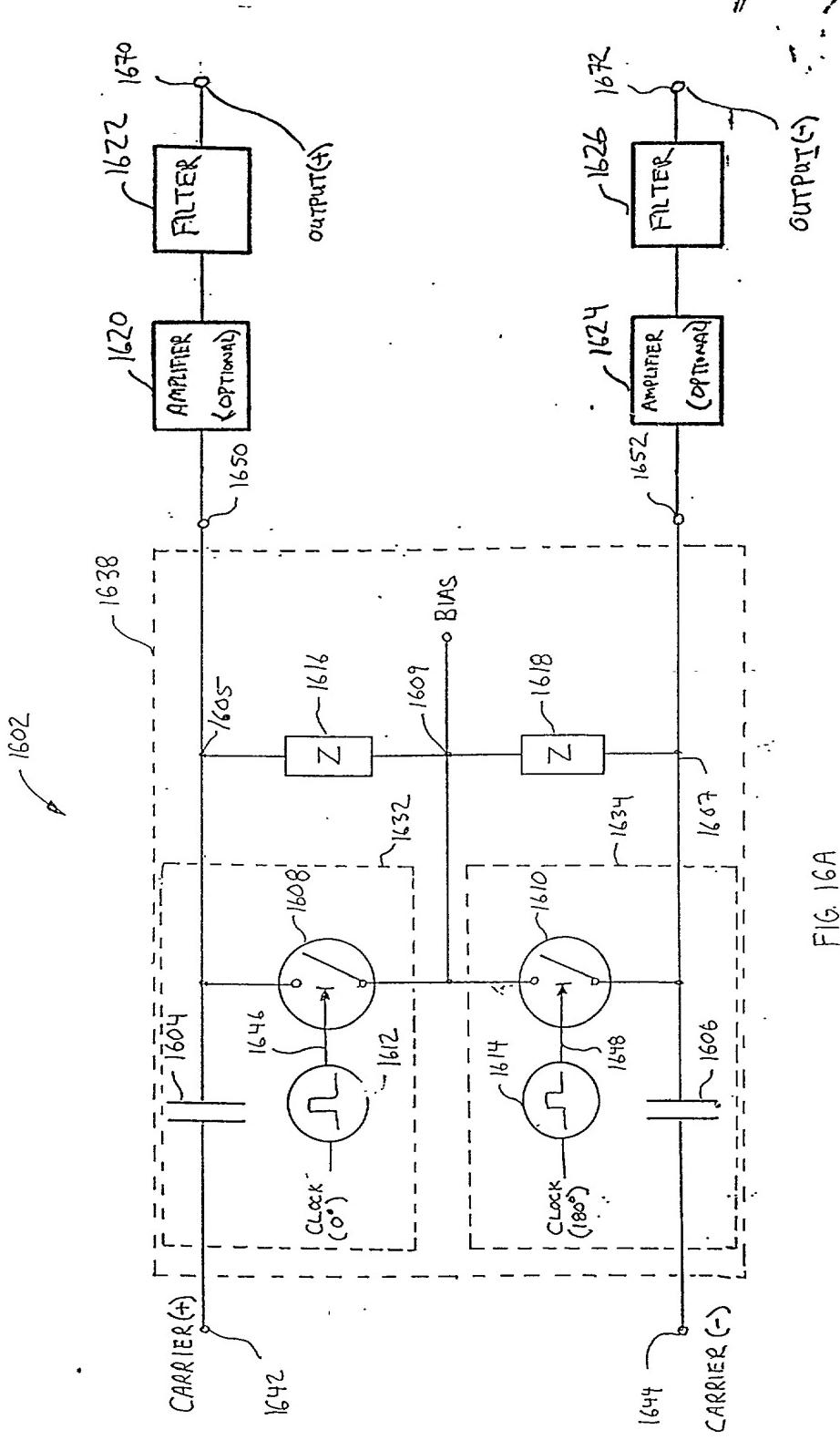


FIG. 16A

1.0V 0.5V 0V -0.5V

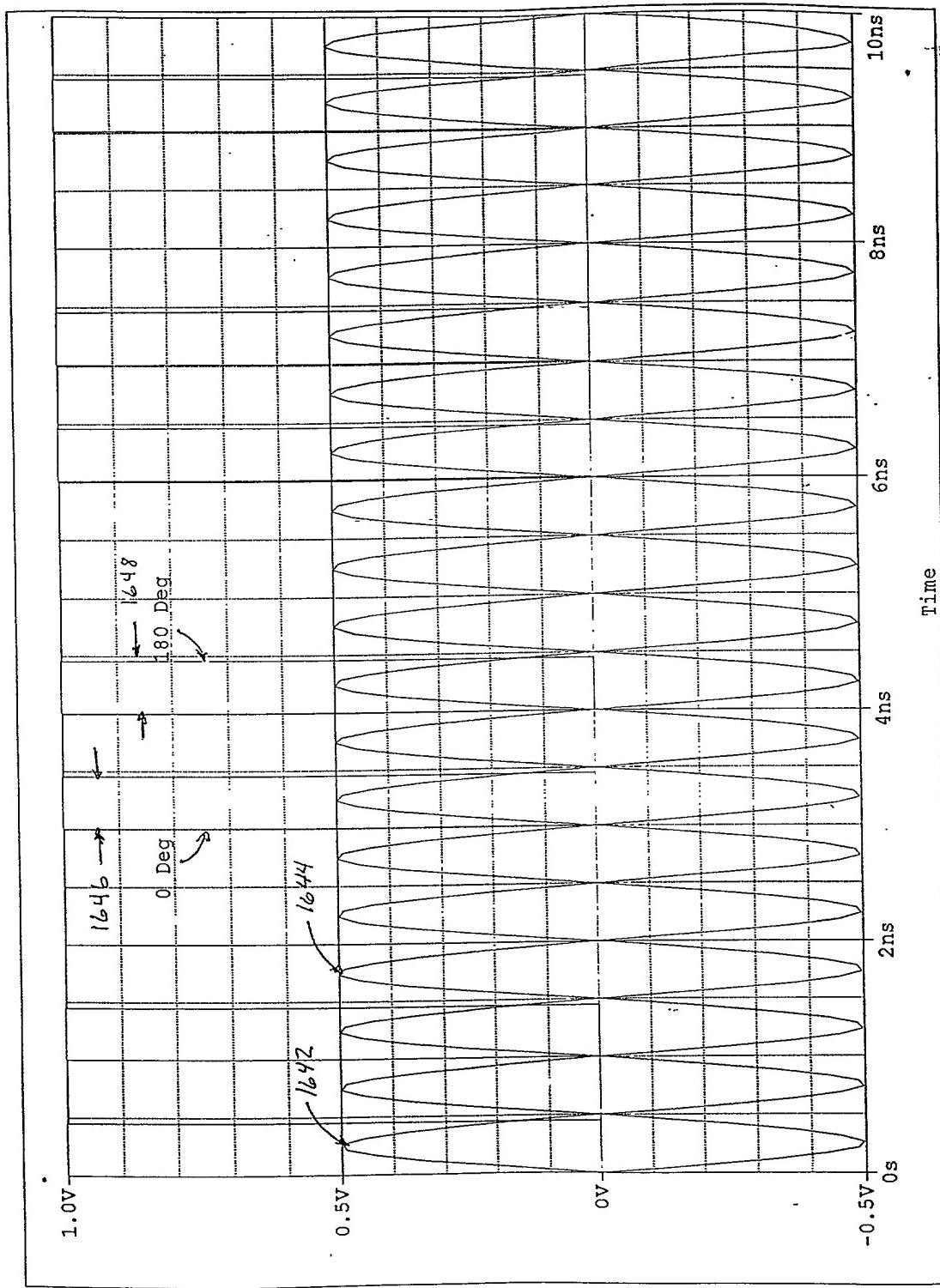


FIG. 16 B

0 9 8 7 6 5 4 3 2 1 . m 0 5 4 6 0 . d

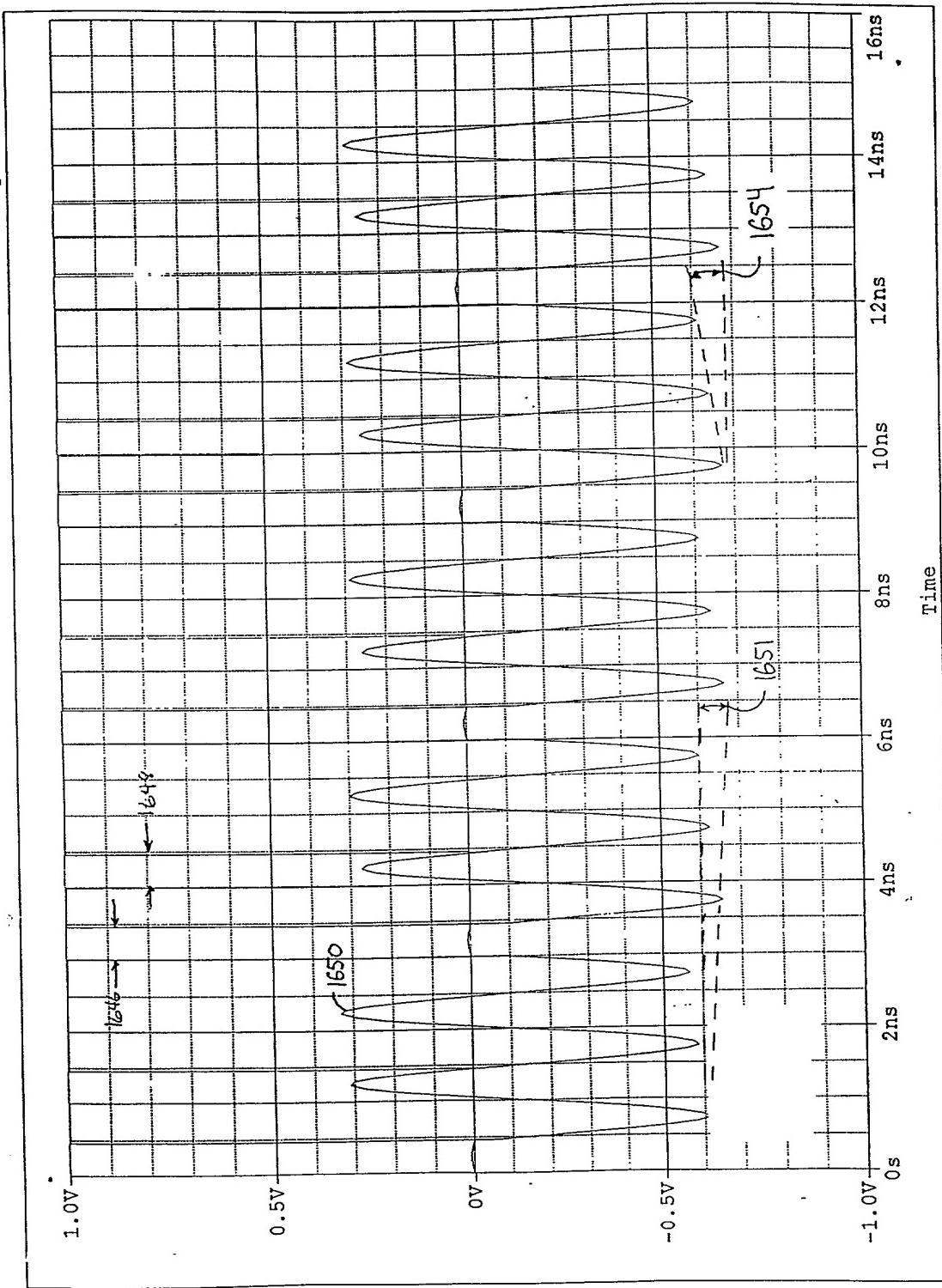


FIG. 16C

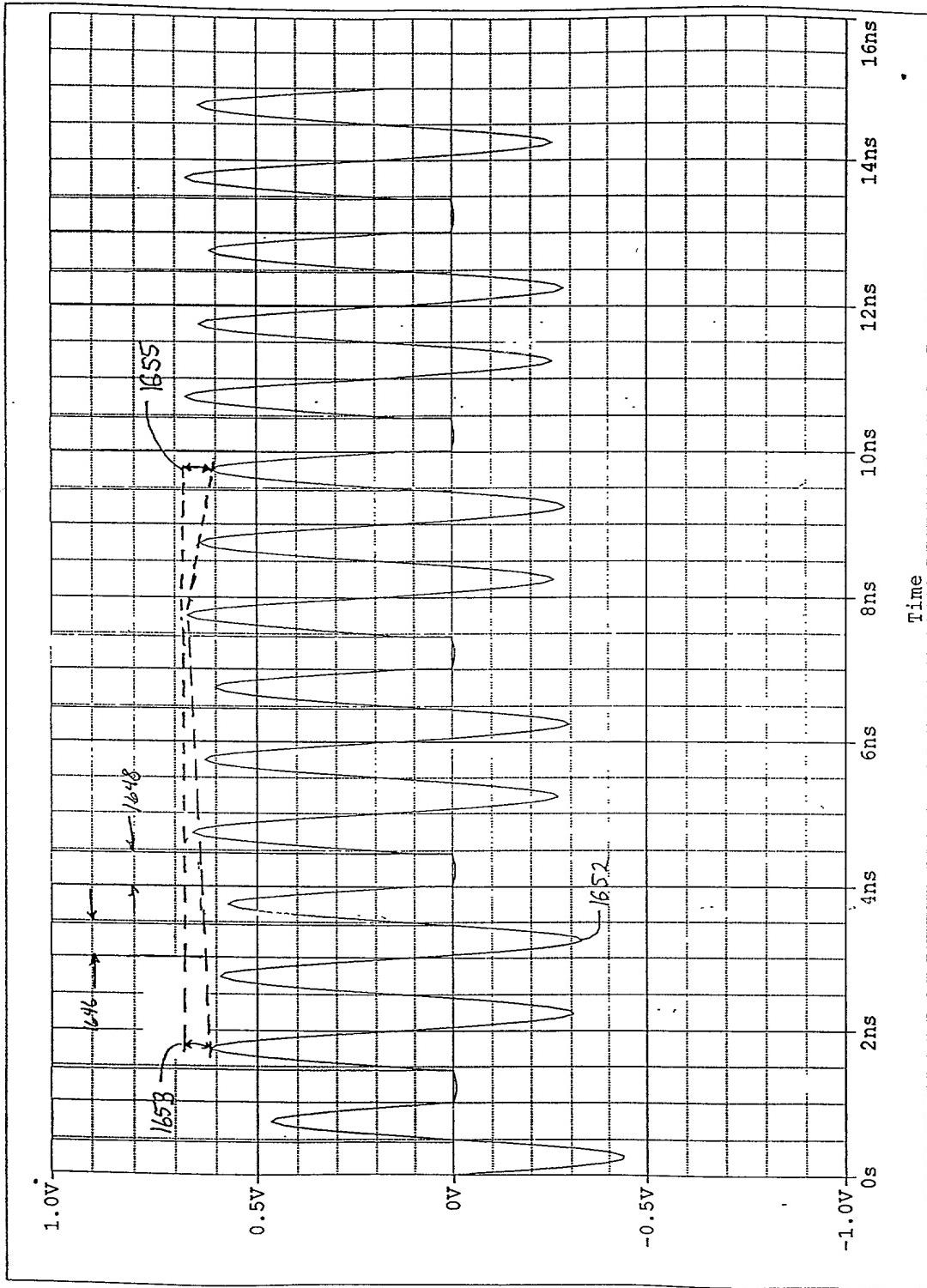


FIG. 16 D

卷之三

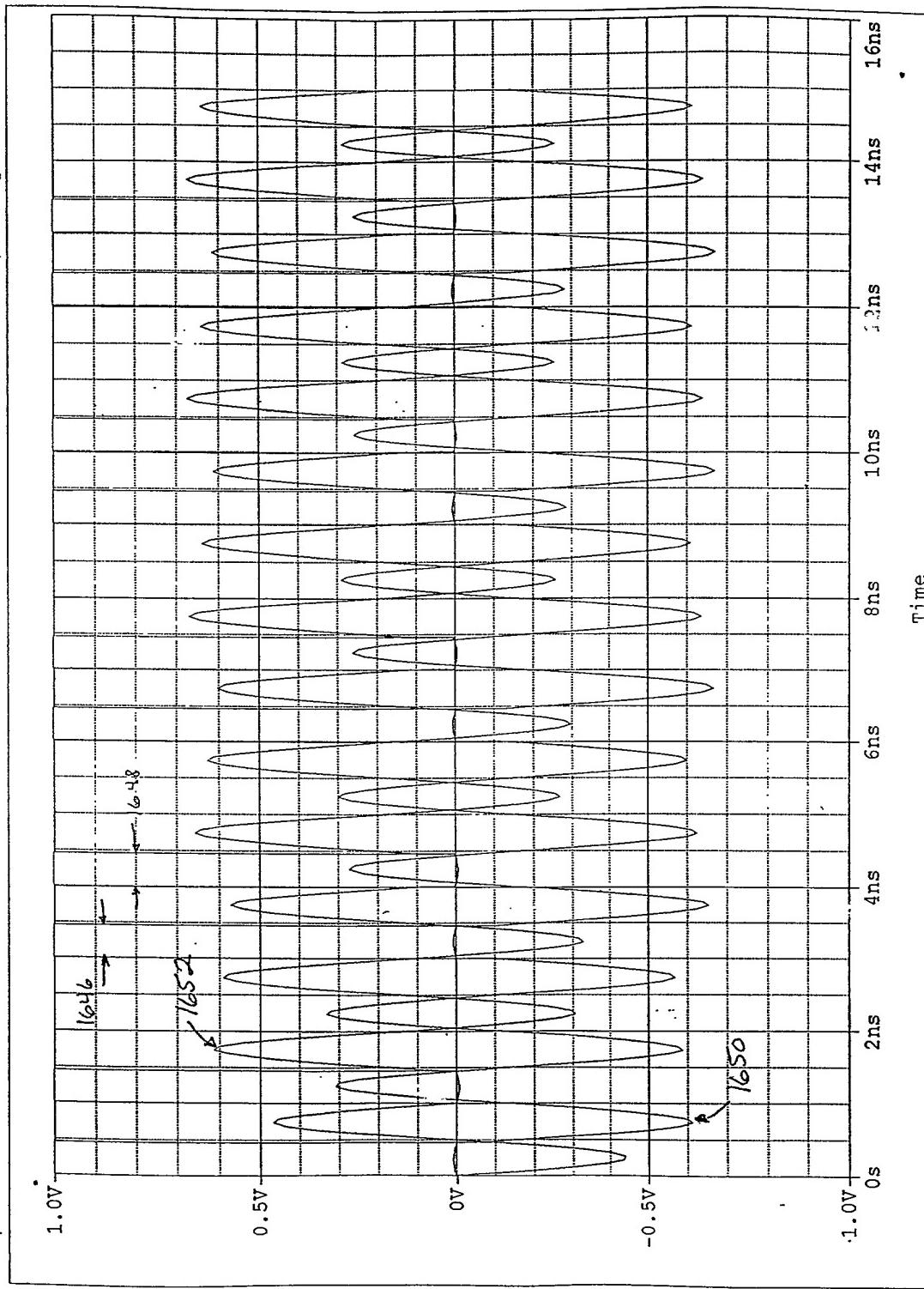


Fig. 16 E

09355354 DE5460

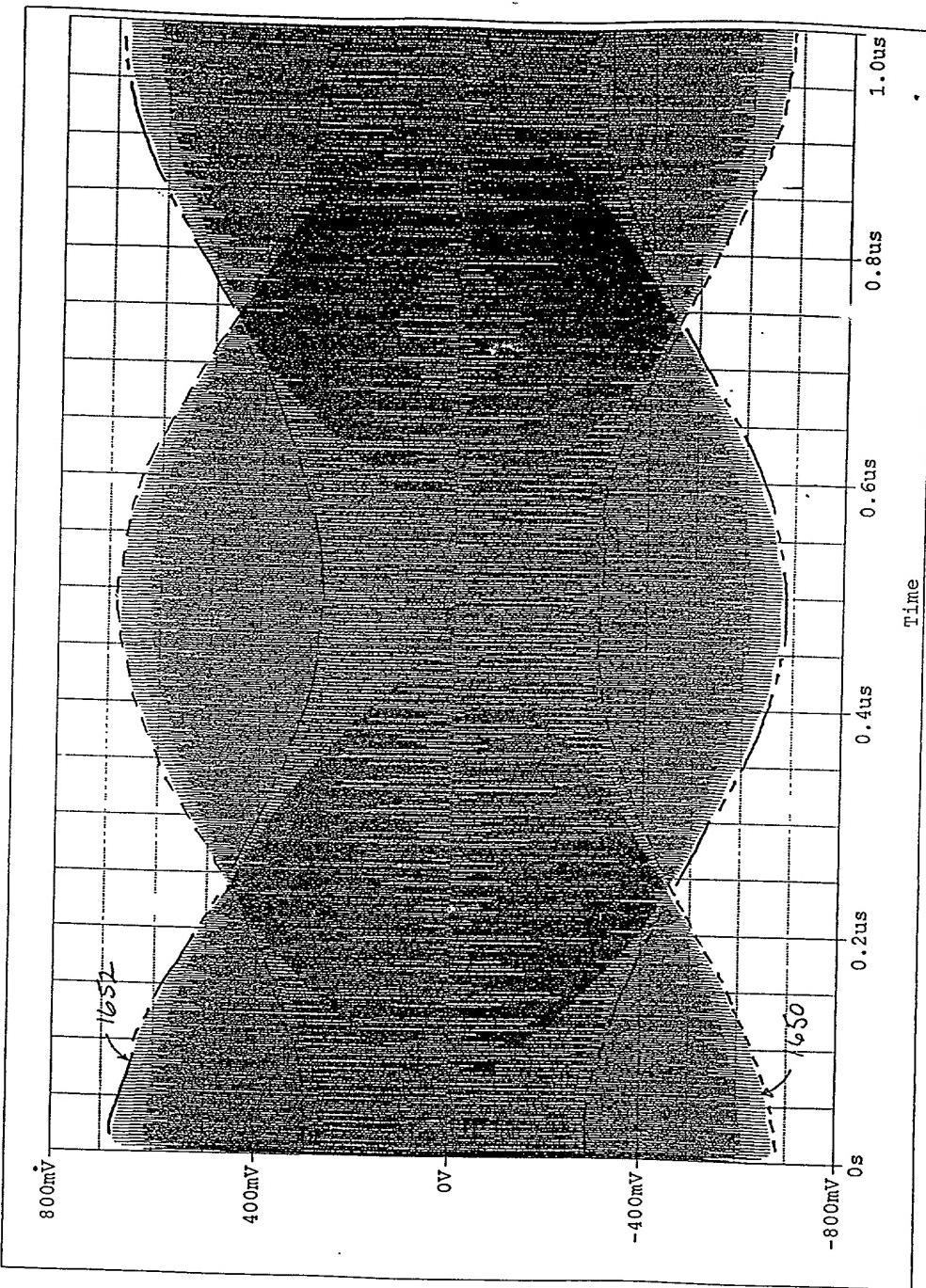


FIG. 16 F

09655854 in CES 160

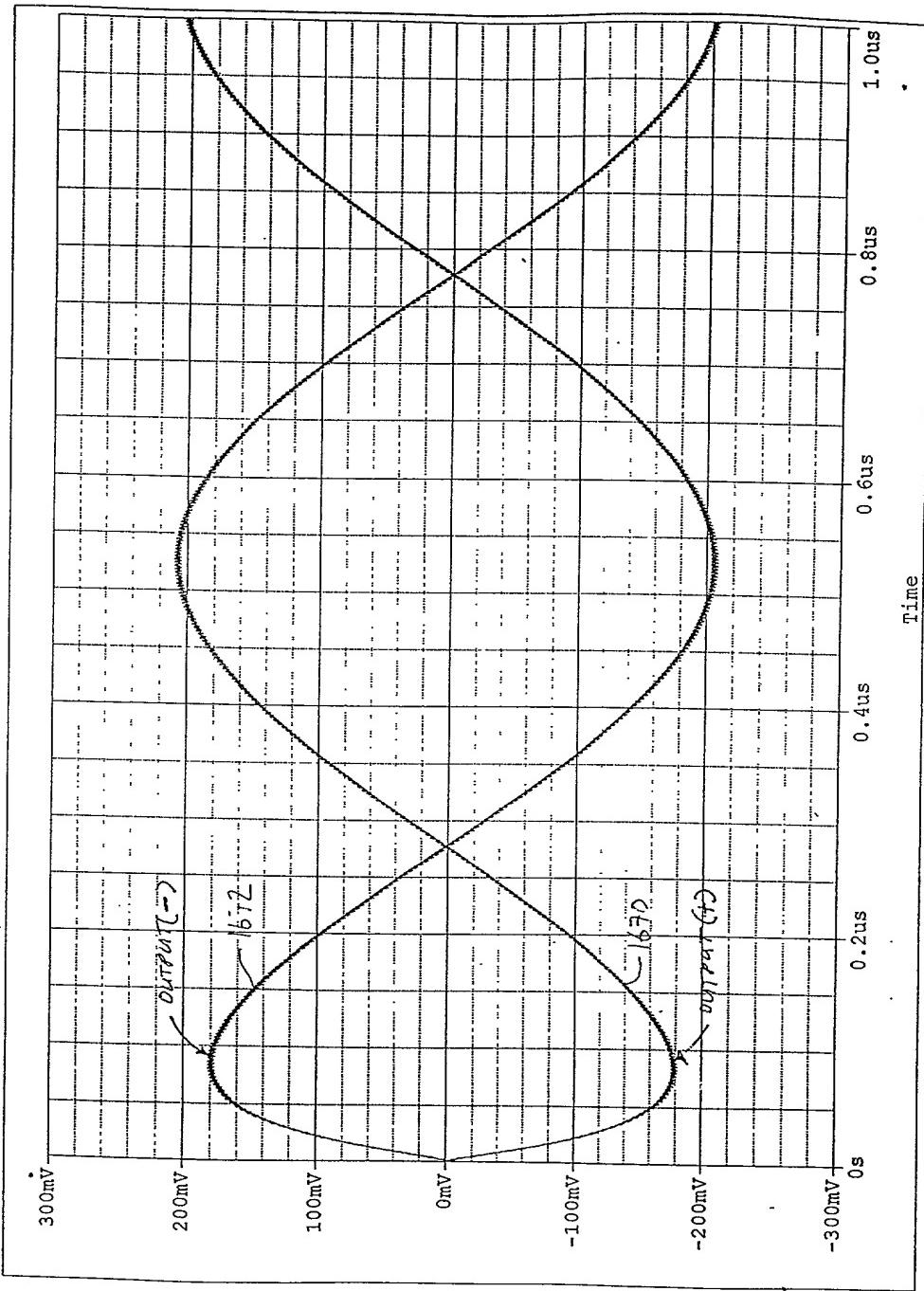
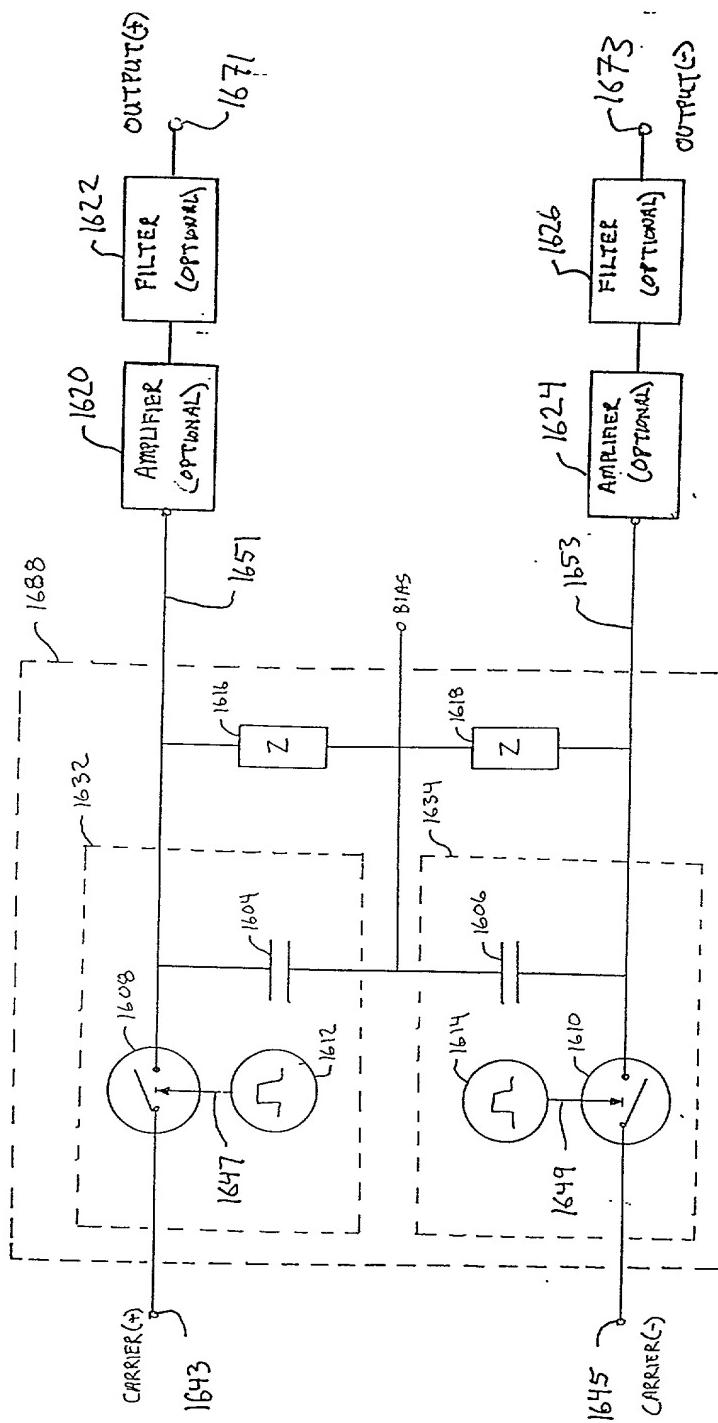


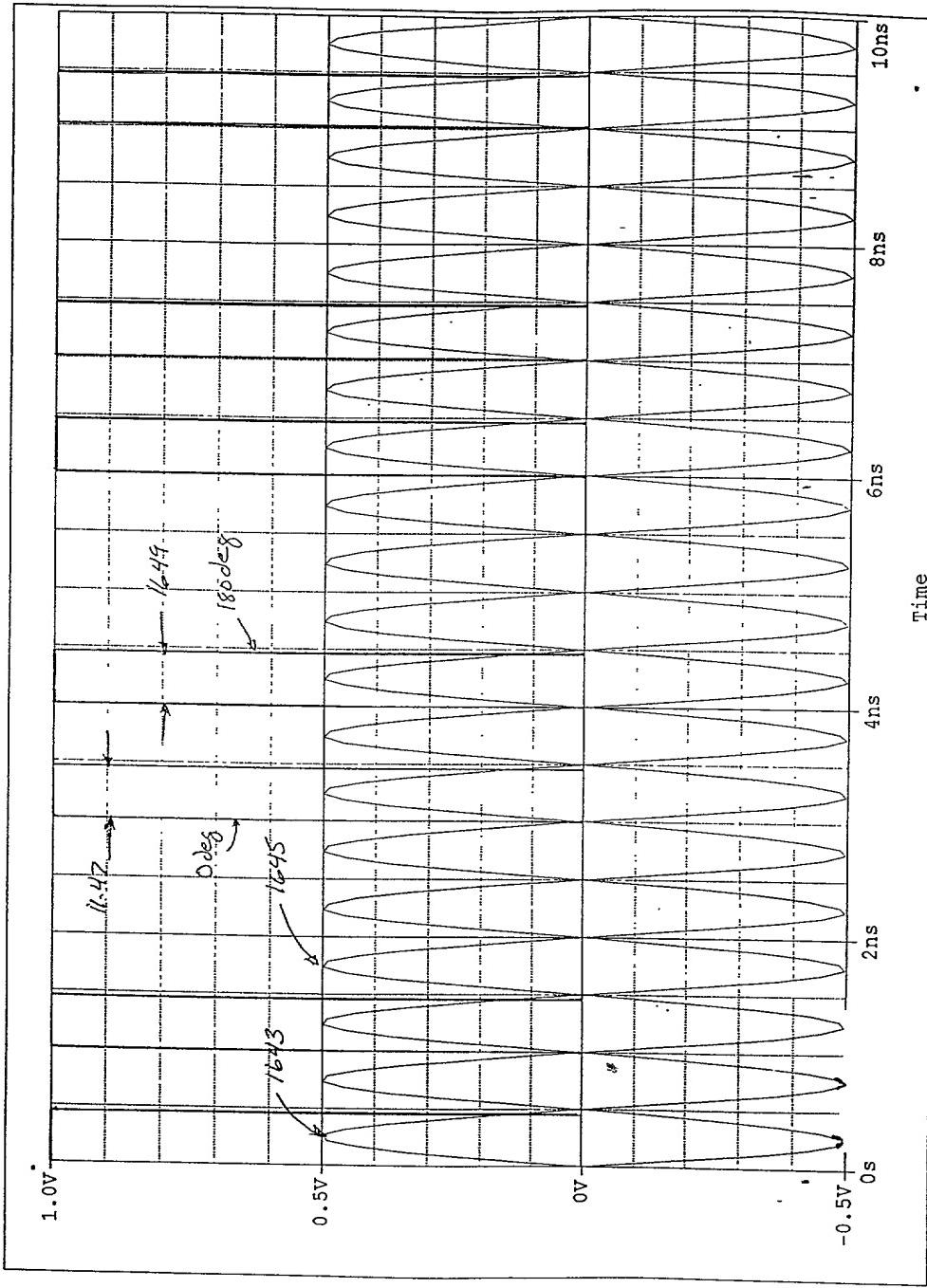
FIG. 16 6

FIG. 16H



GÖTTSCHE LOWE AND THE COLEMAN FLOWERS

09355854 035150



F16. 16T

09355854 CES 4.6 G

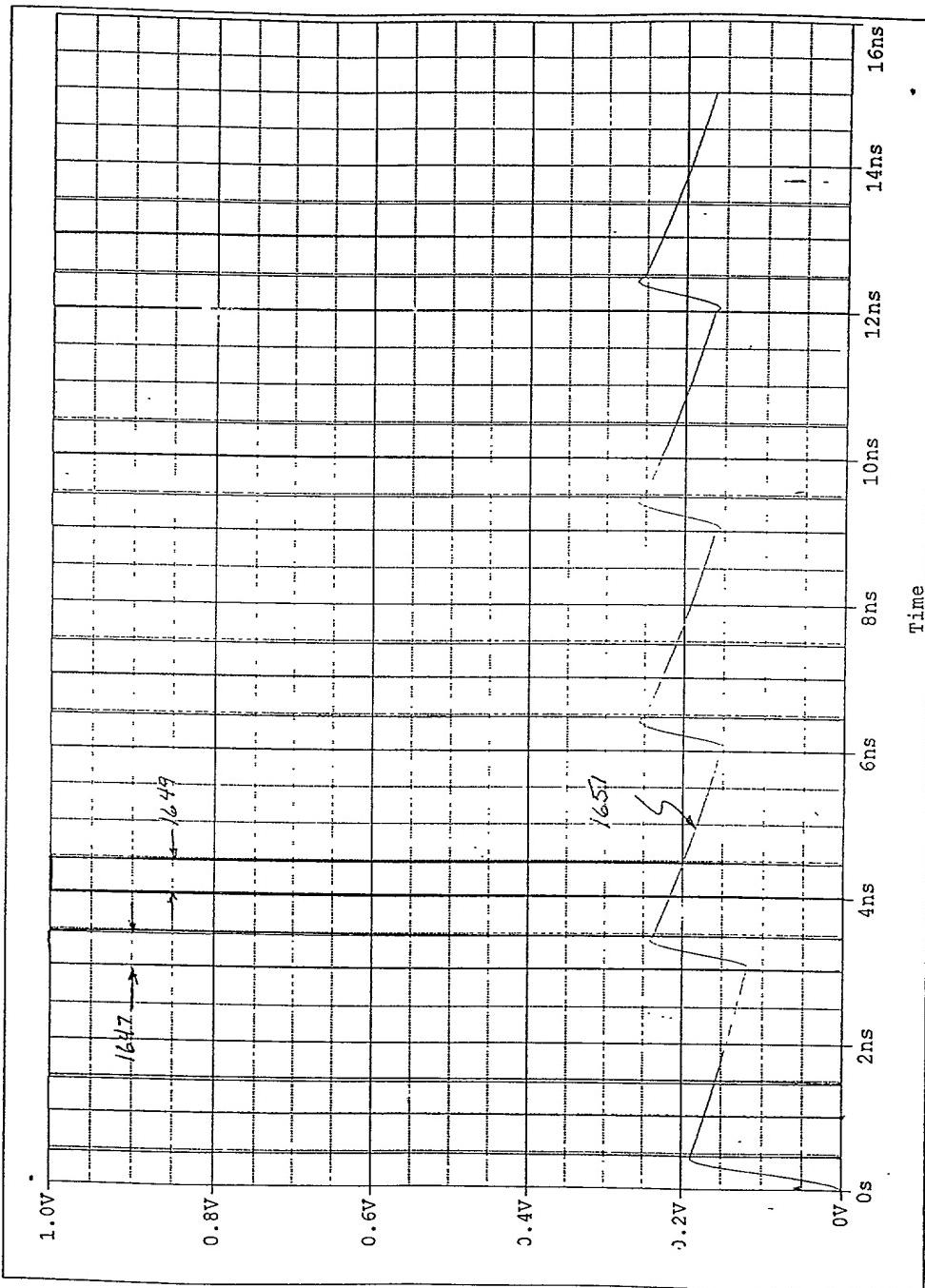
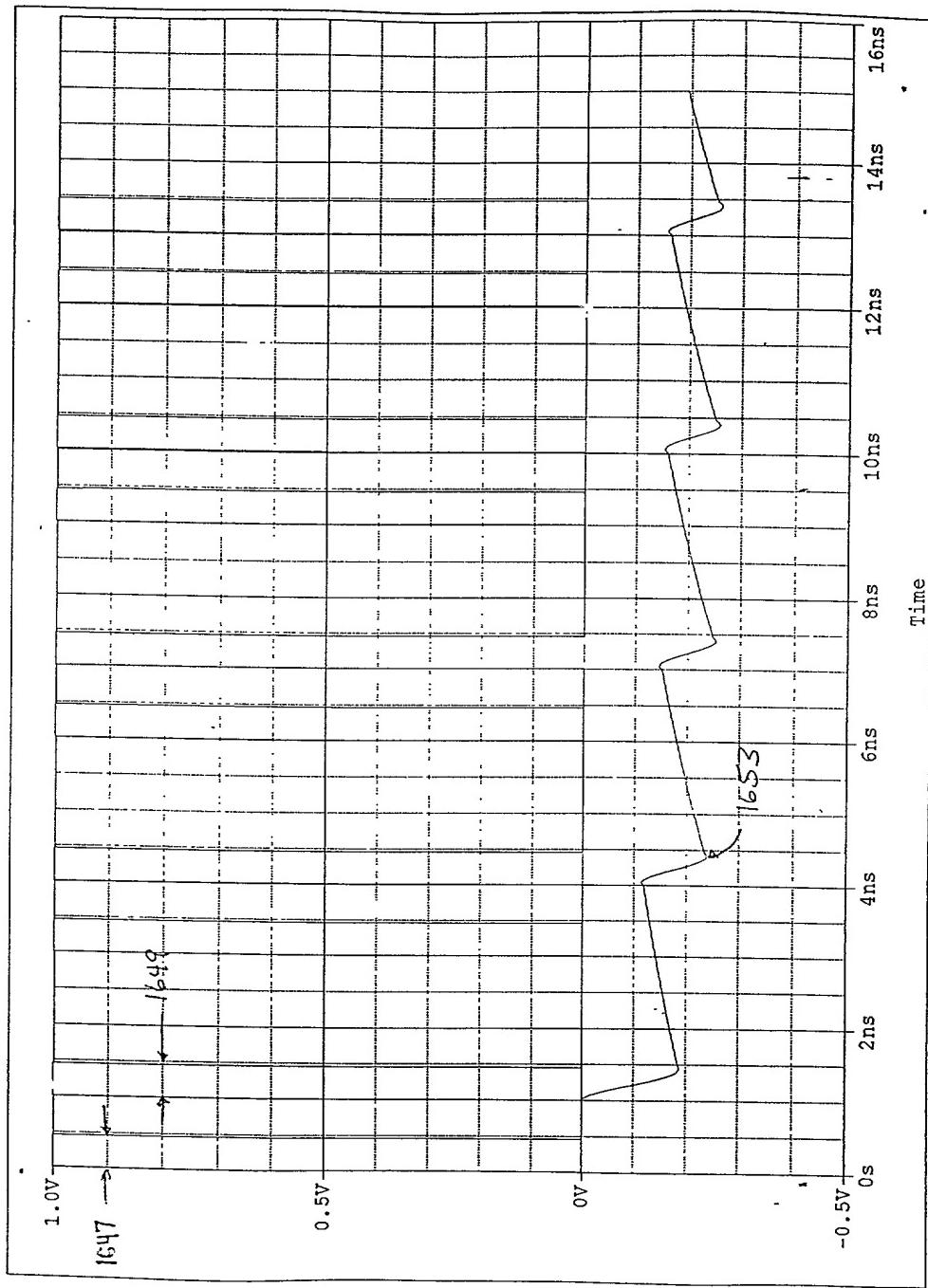


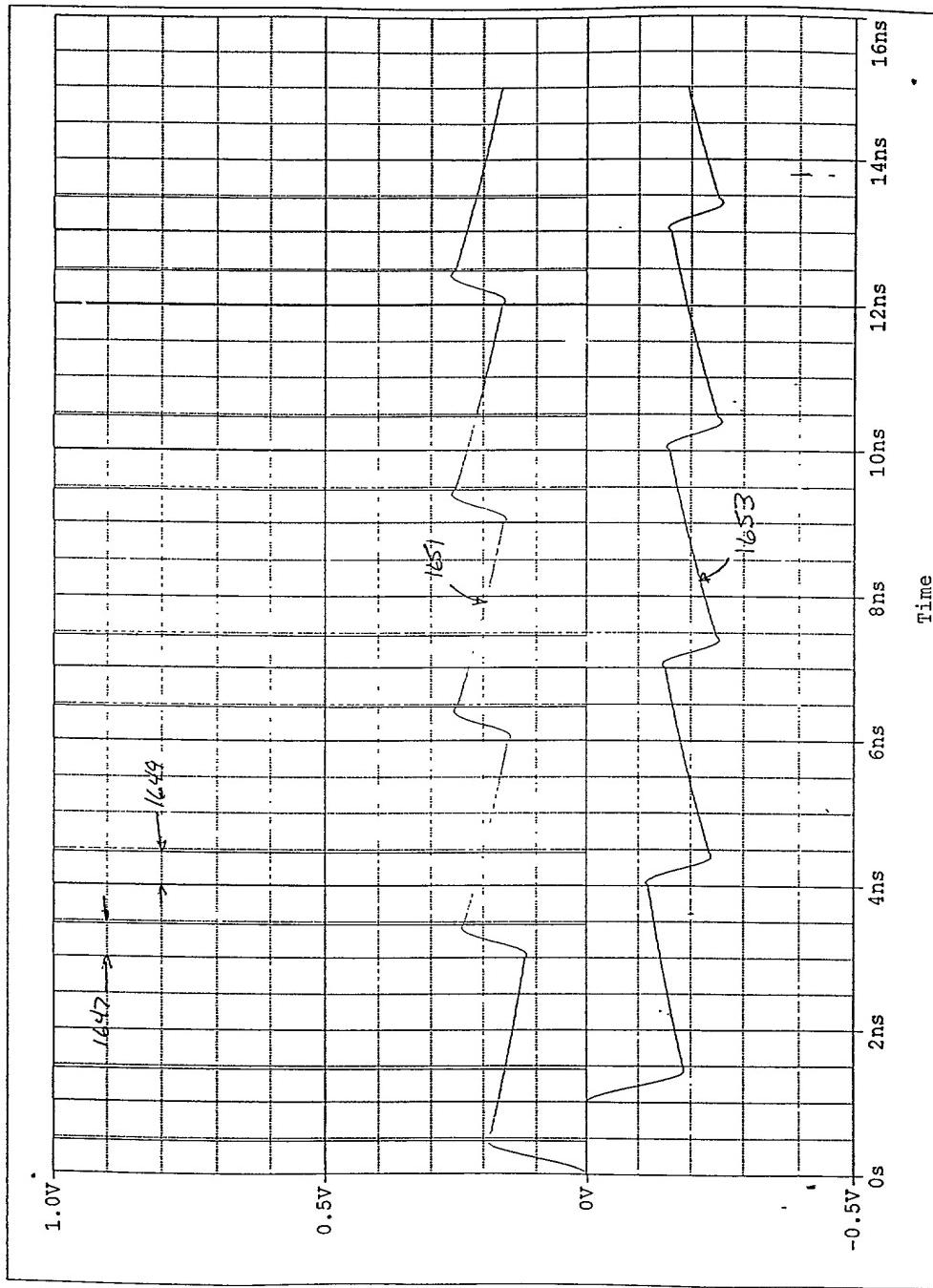
Fig. 16J

0 50 100 150 200 250 300 350 400



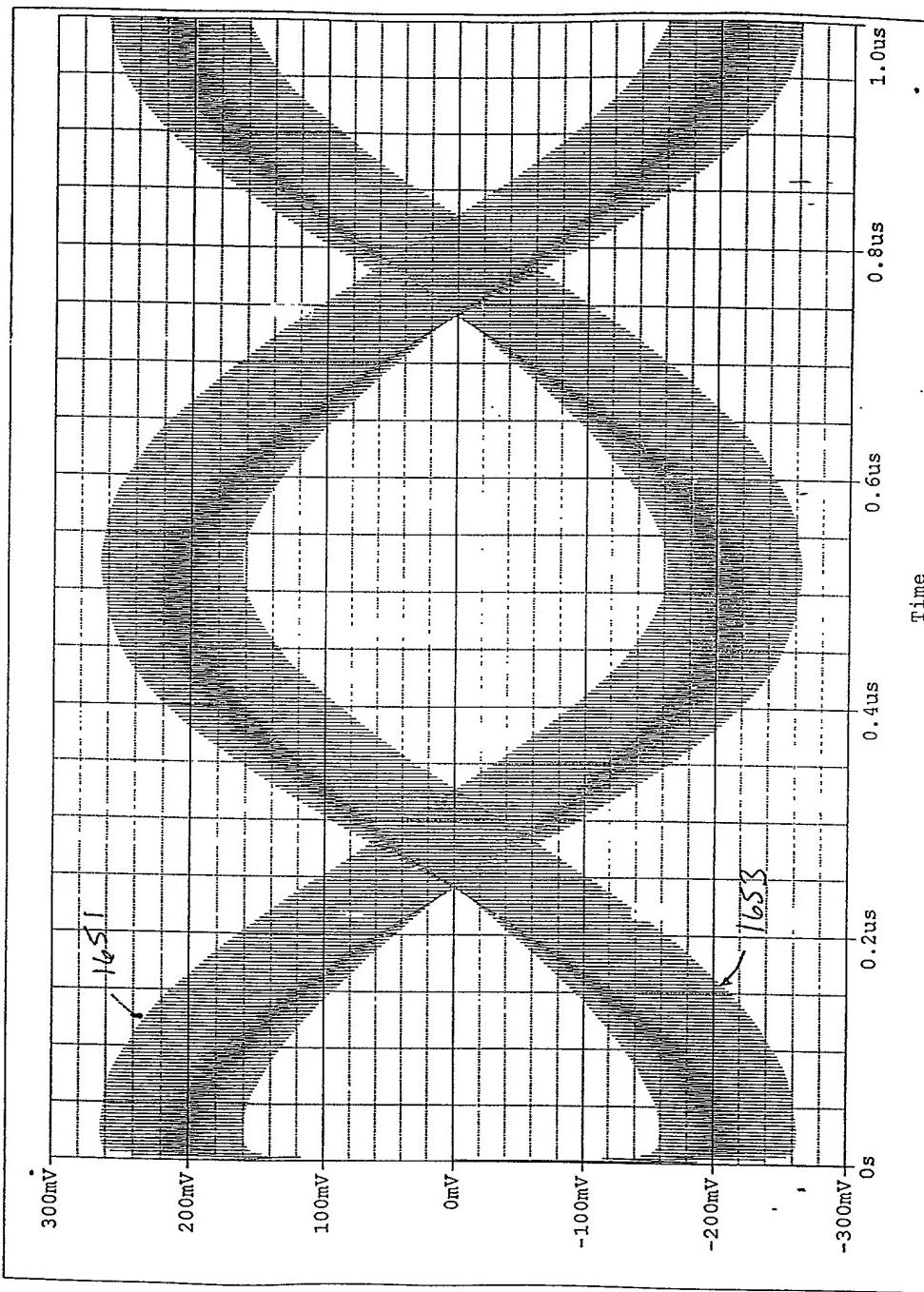
F16, 16K

0 9 8 5 6 5 3 0 5 4 6 0



F16. 16L

FIG. 16M



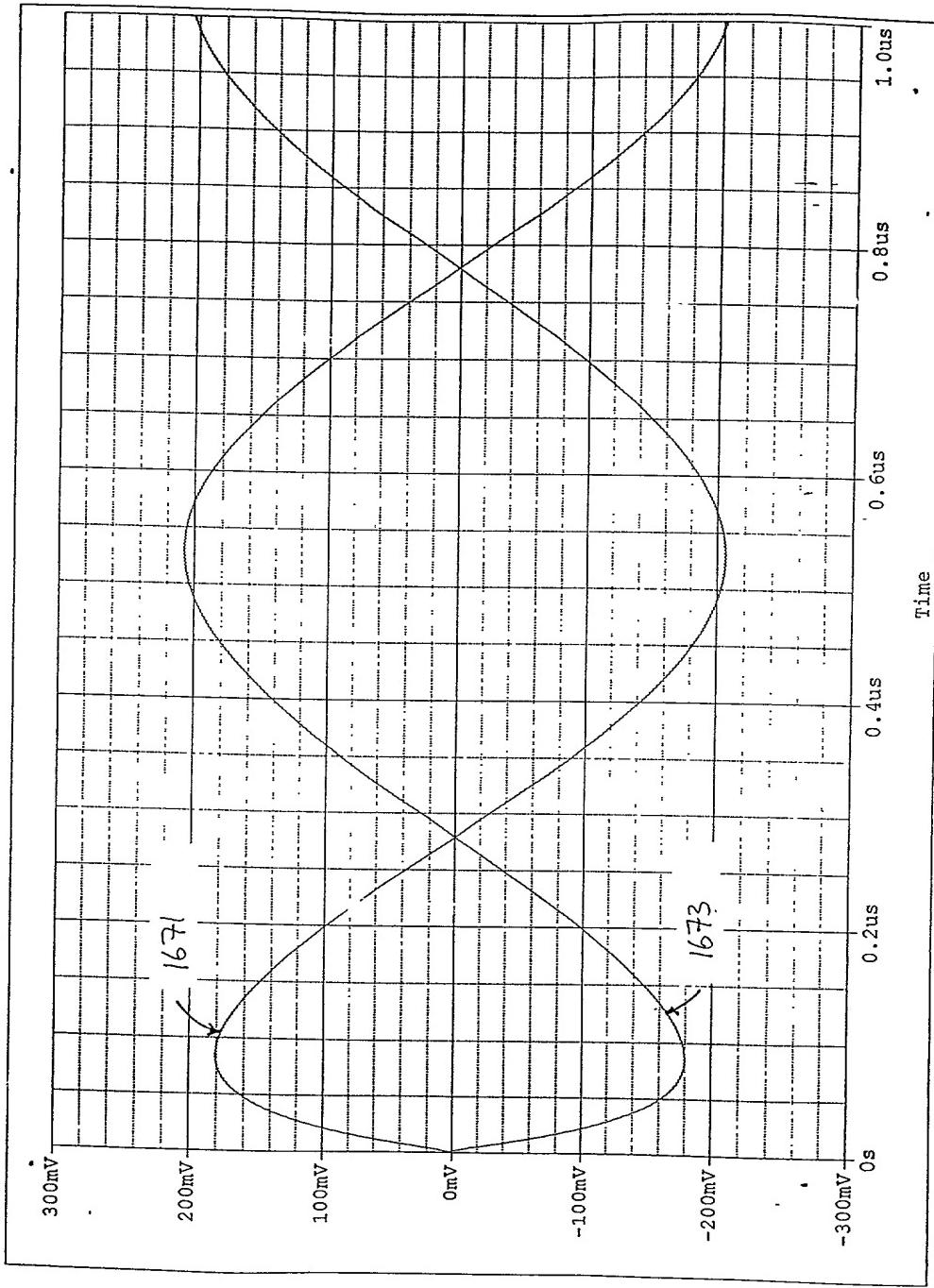


FIG. 16N

0965585 05660

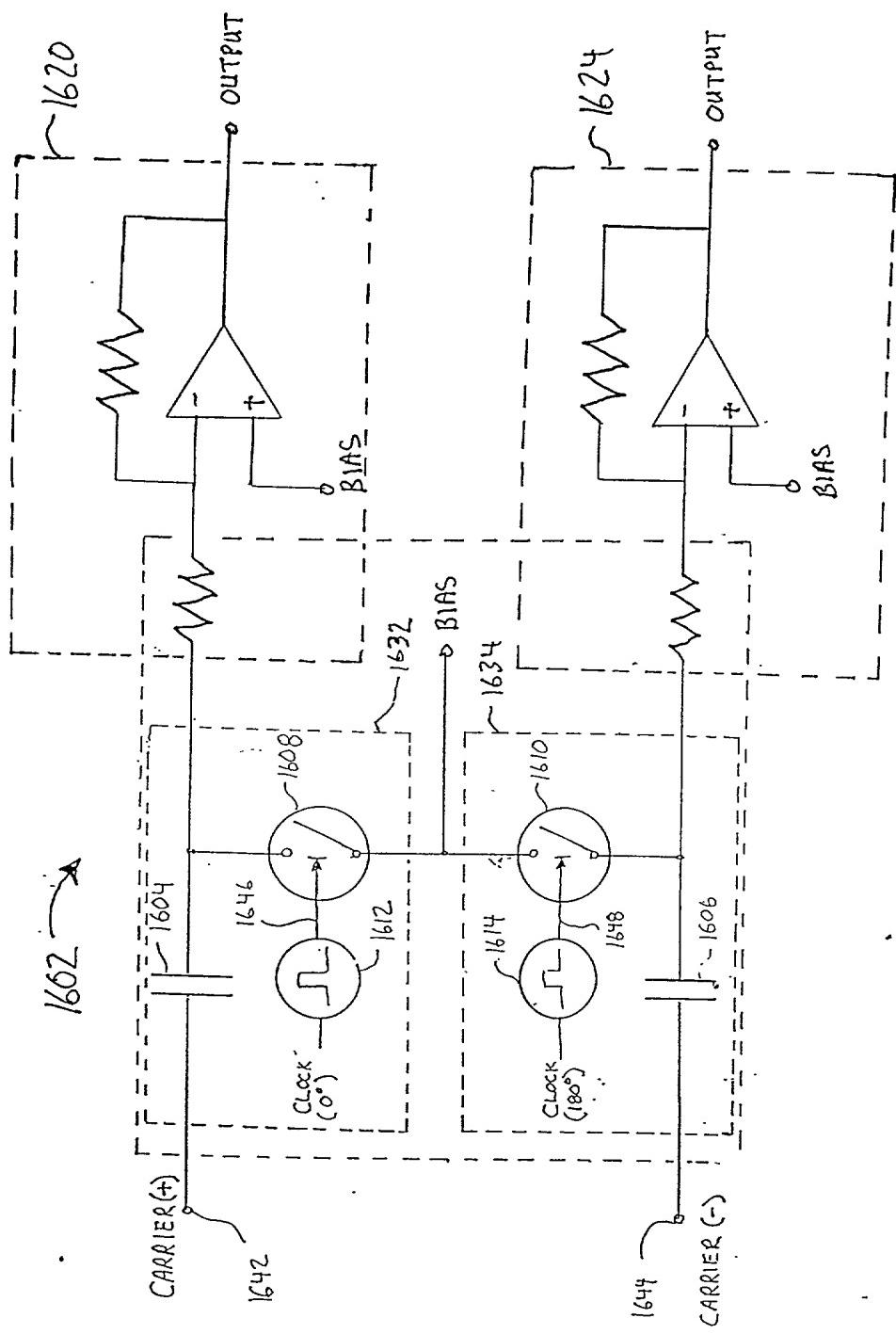
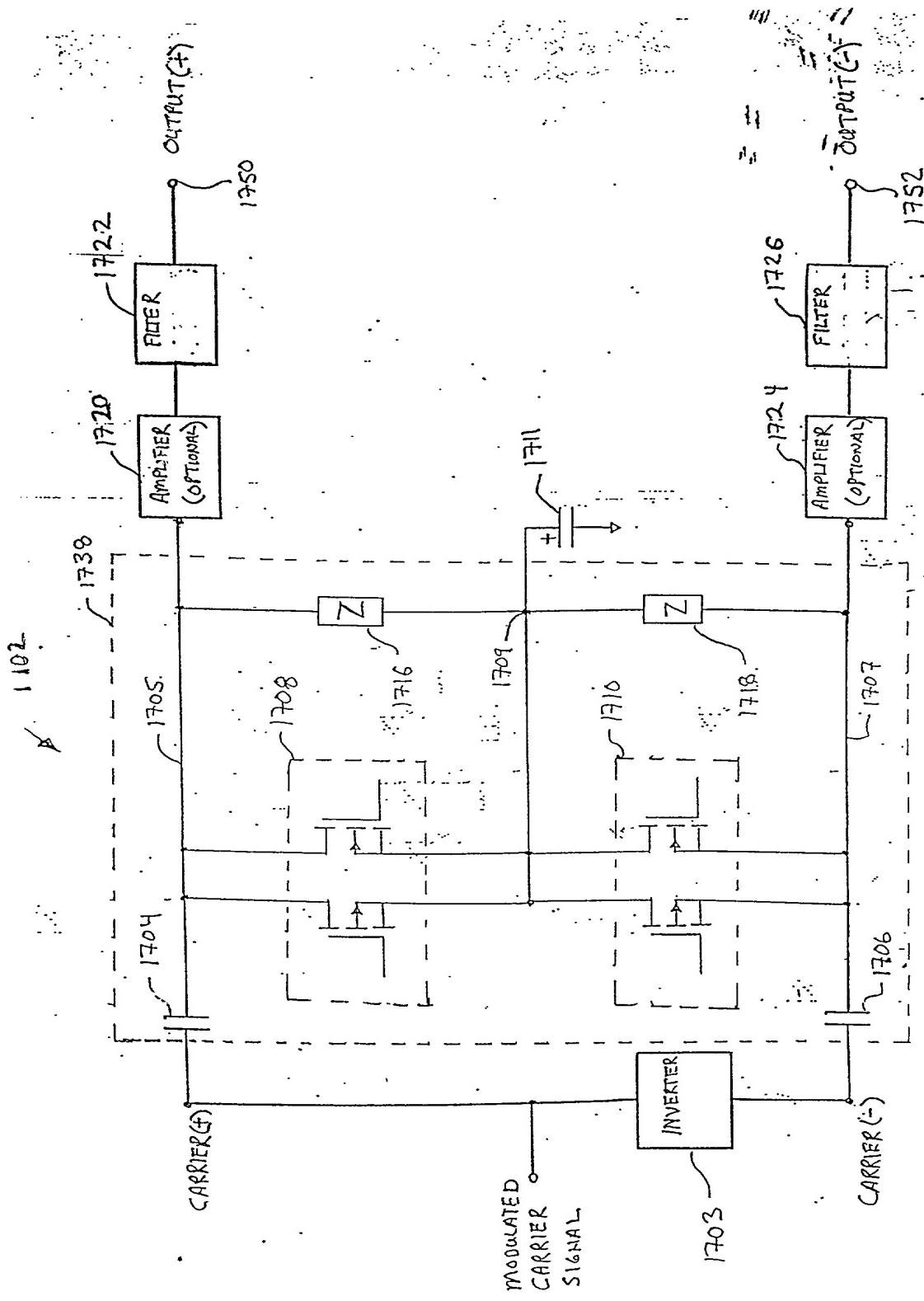


Fig. 160



F16, 17

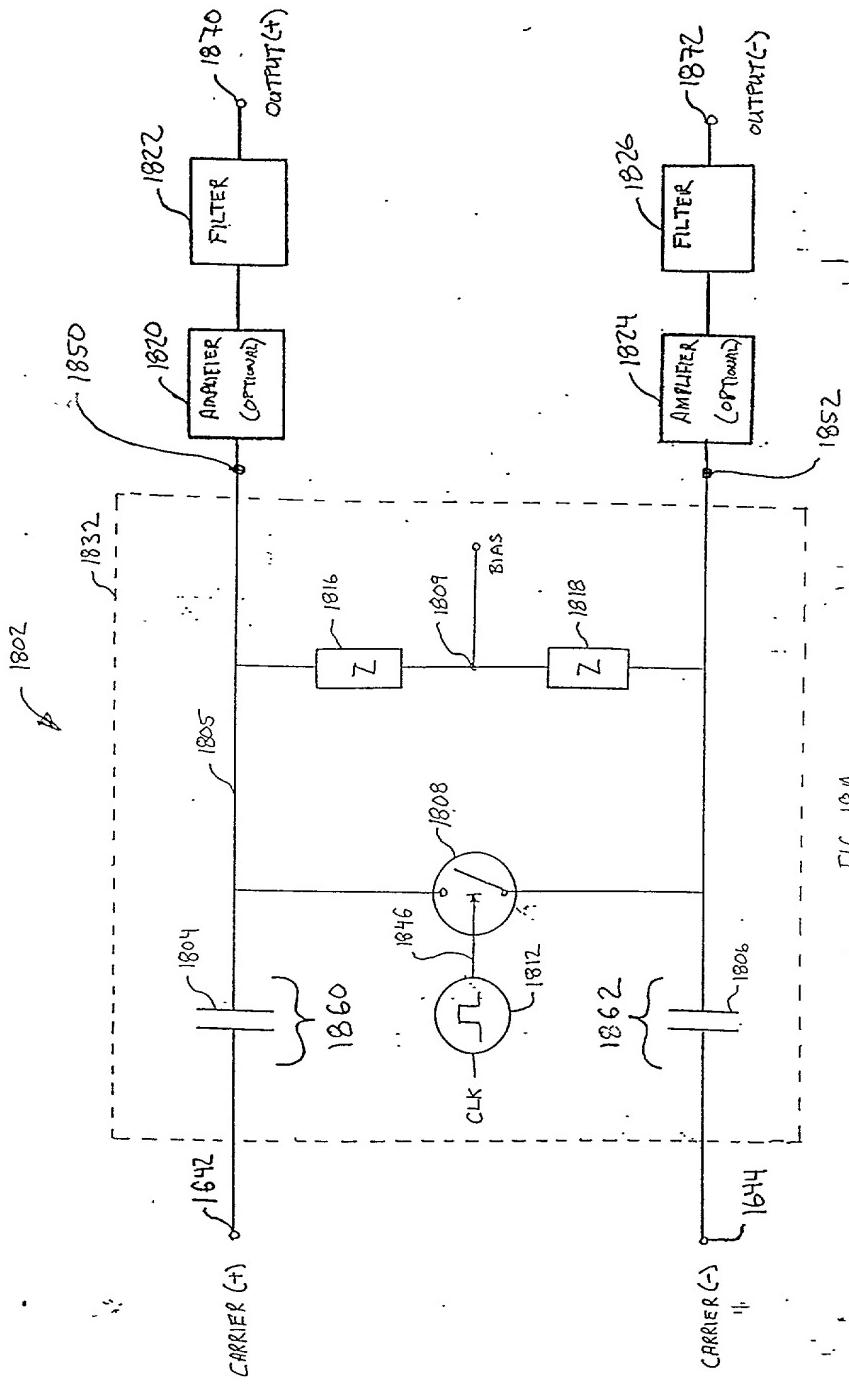


FIG. 18A

0.000000000000000

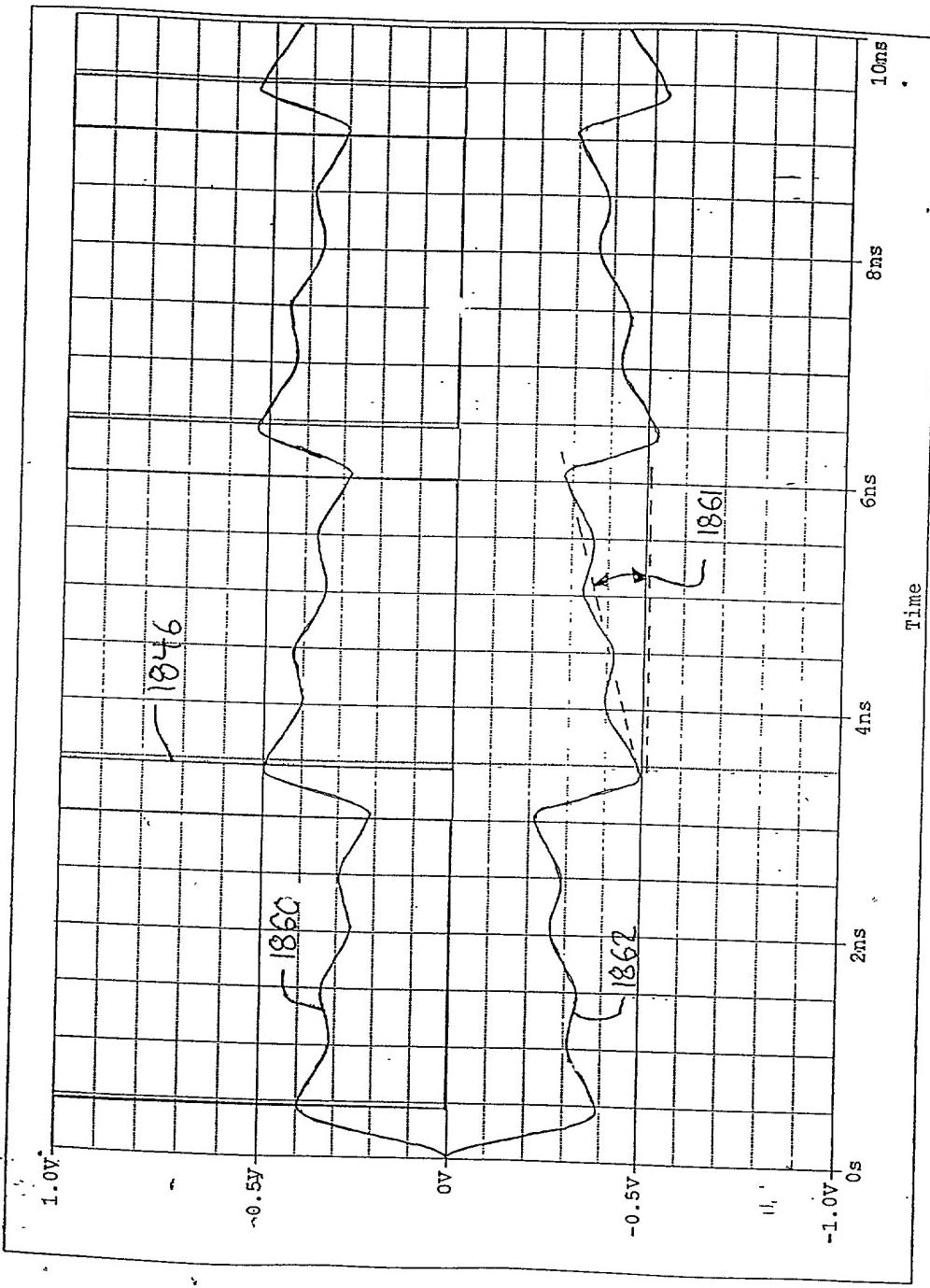
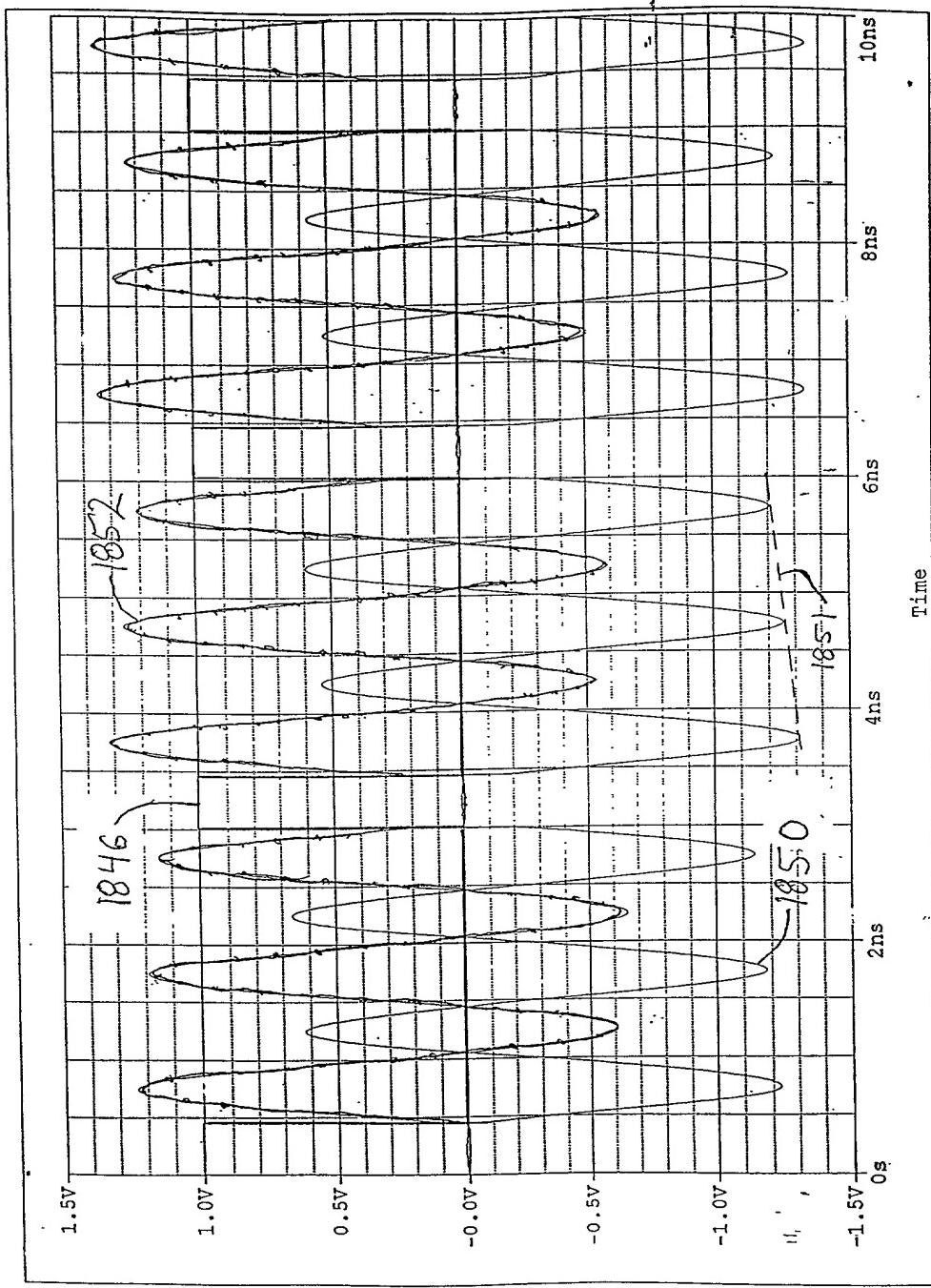


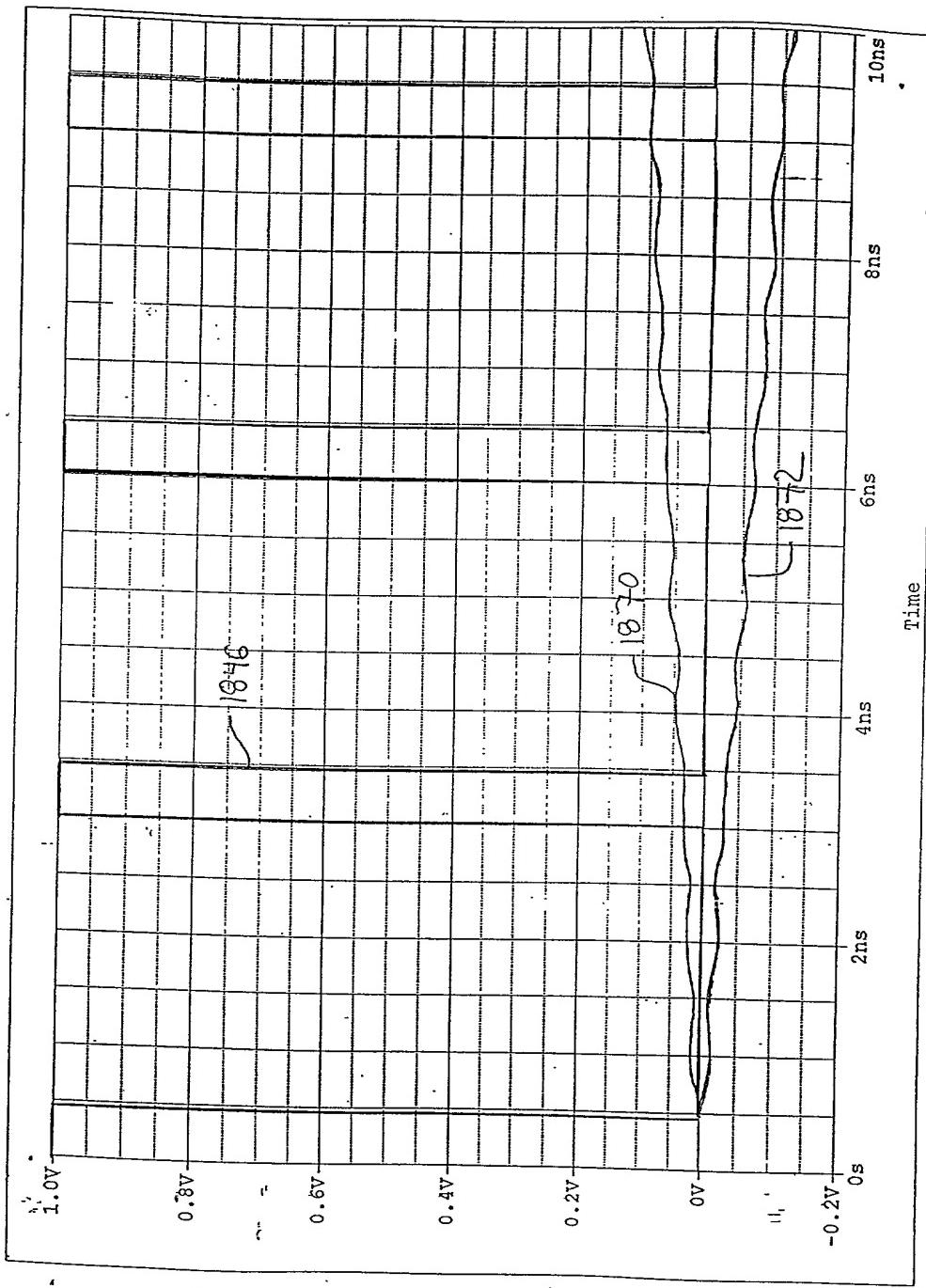
FIG. 18B

0 9 8 3 5 5 3 5 4 0 9 5 4 6 0



F16. 18C

093355851 083160



F16. 18D

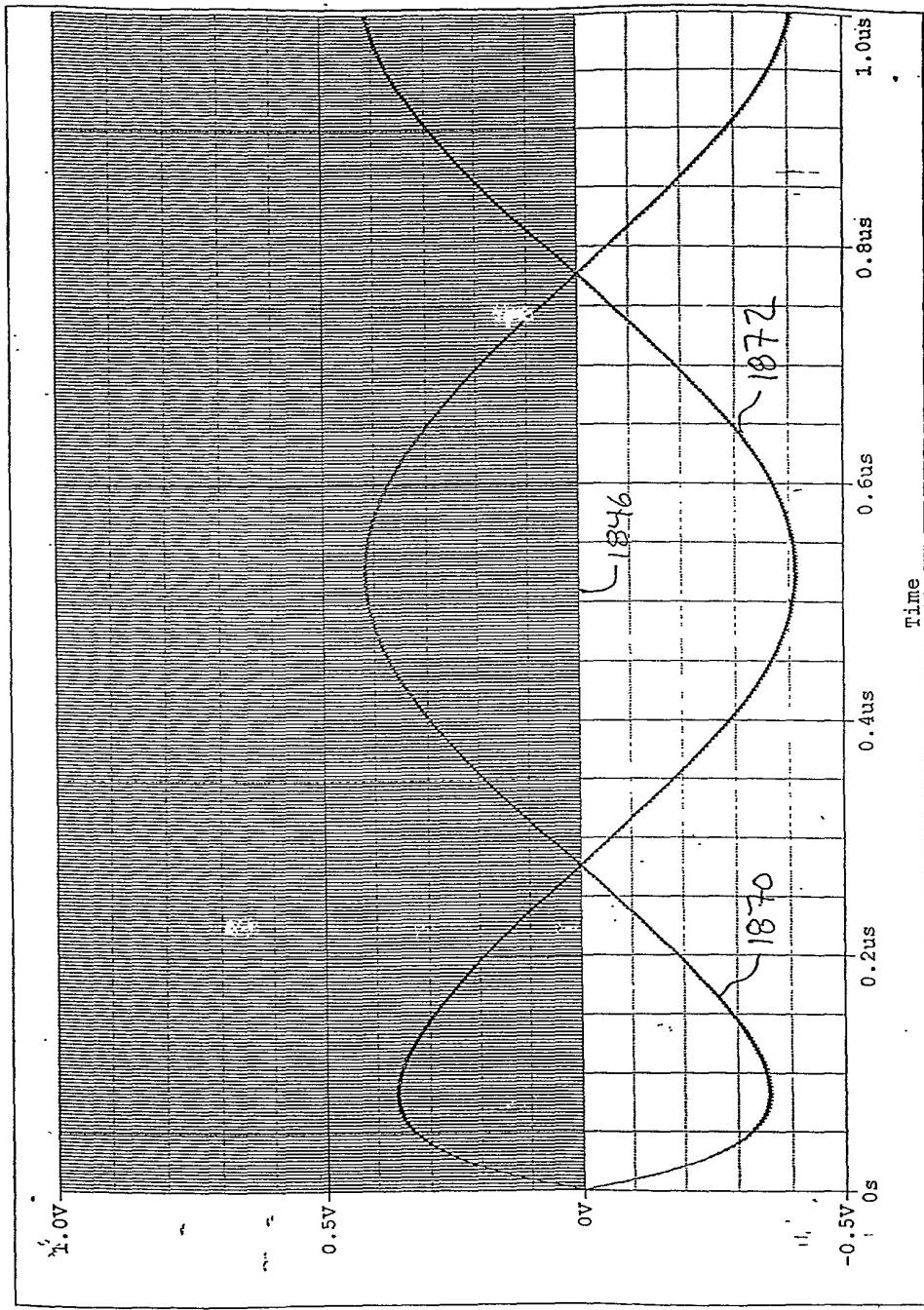
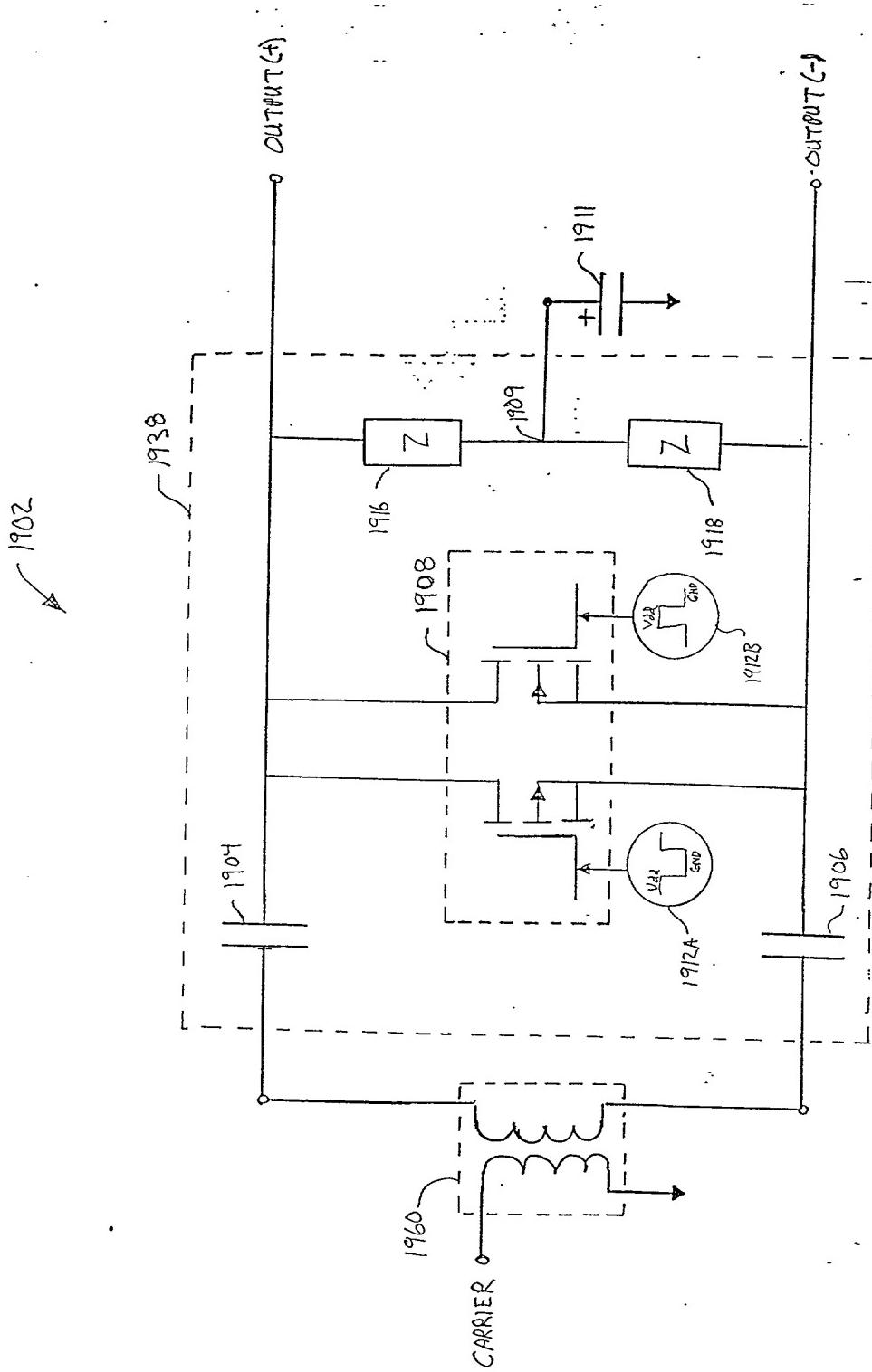


FIG. 18E

FIG. 19



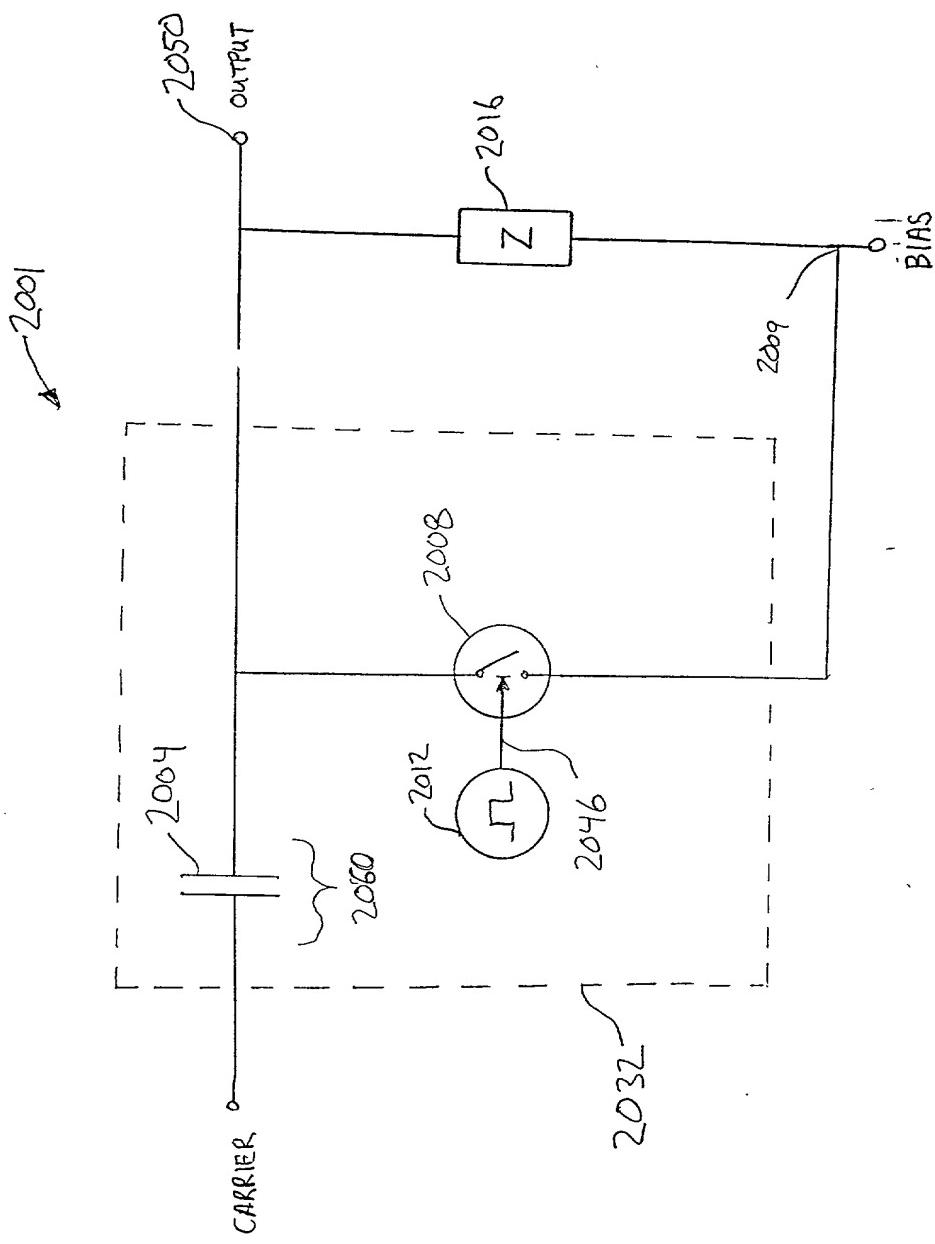


FIG. 20A.

0.9855555555555555

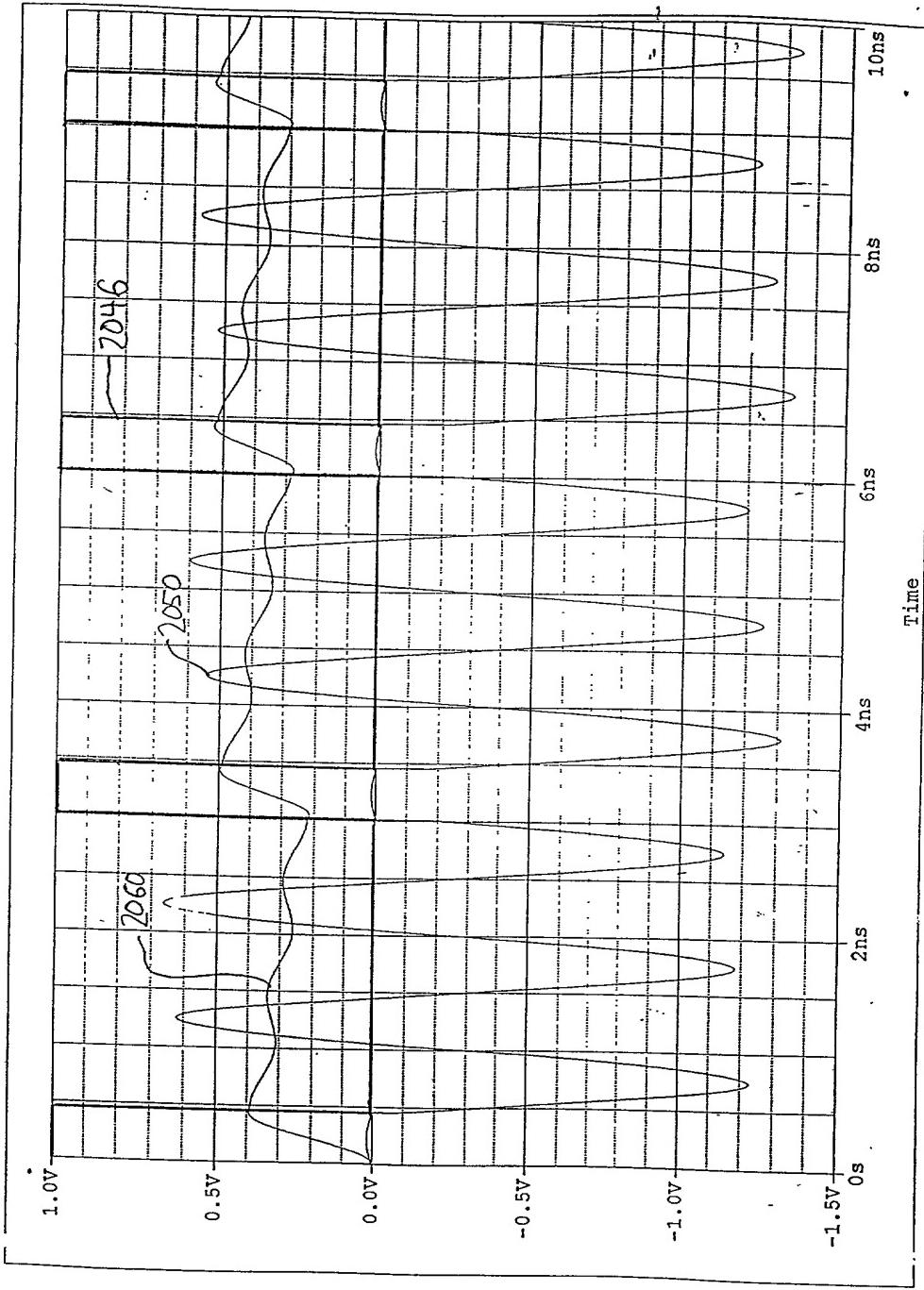


FIG. 20B.

093558 CES 460

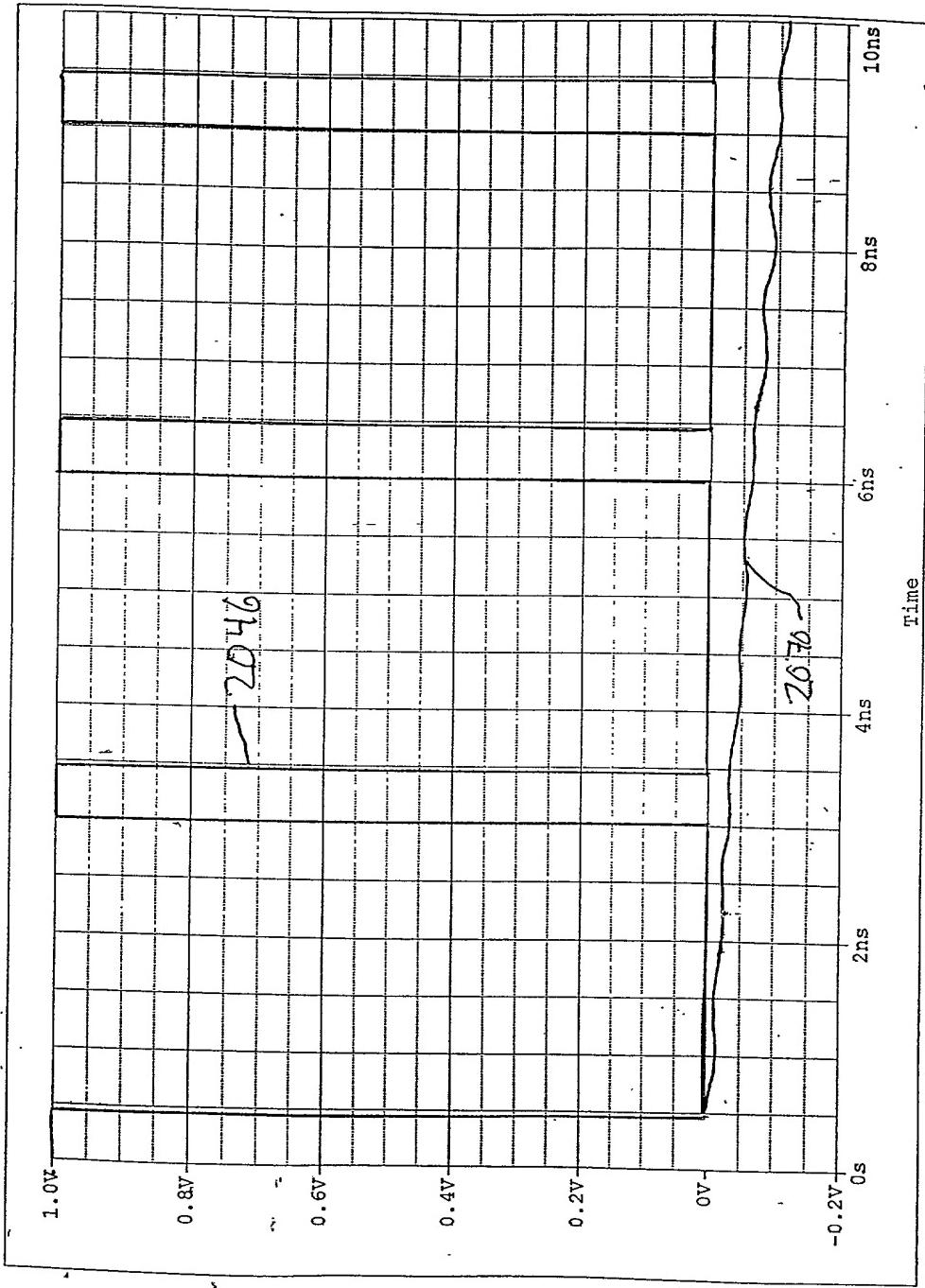


FIG. 20C

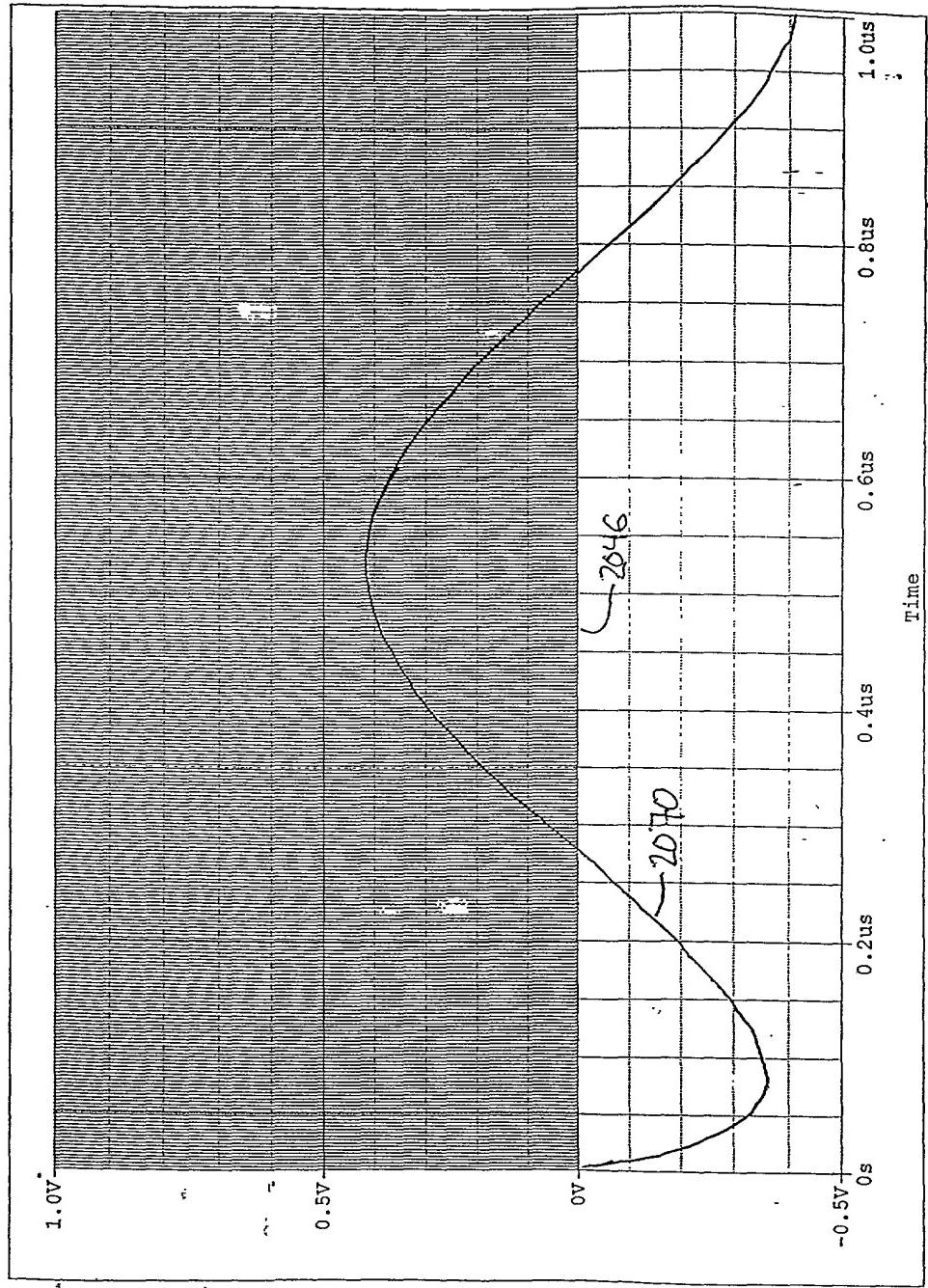


FIG. 20D

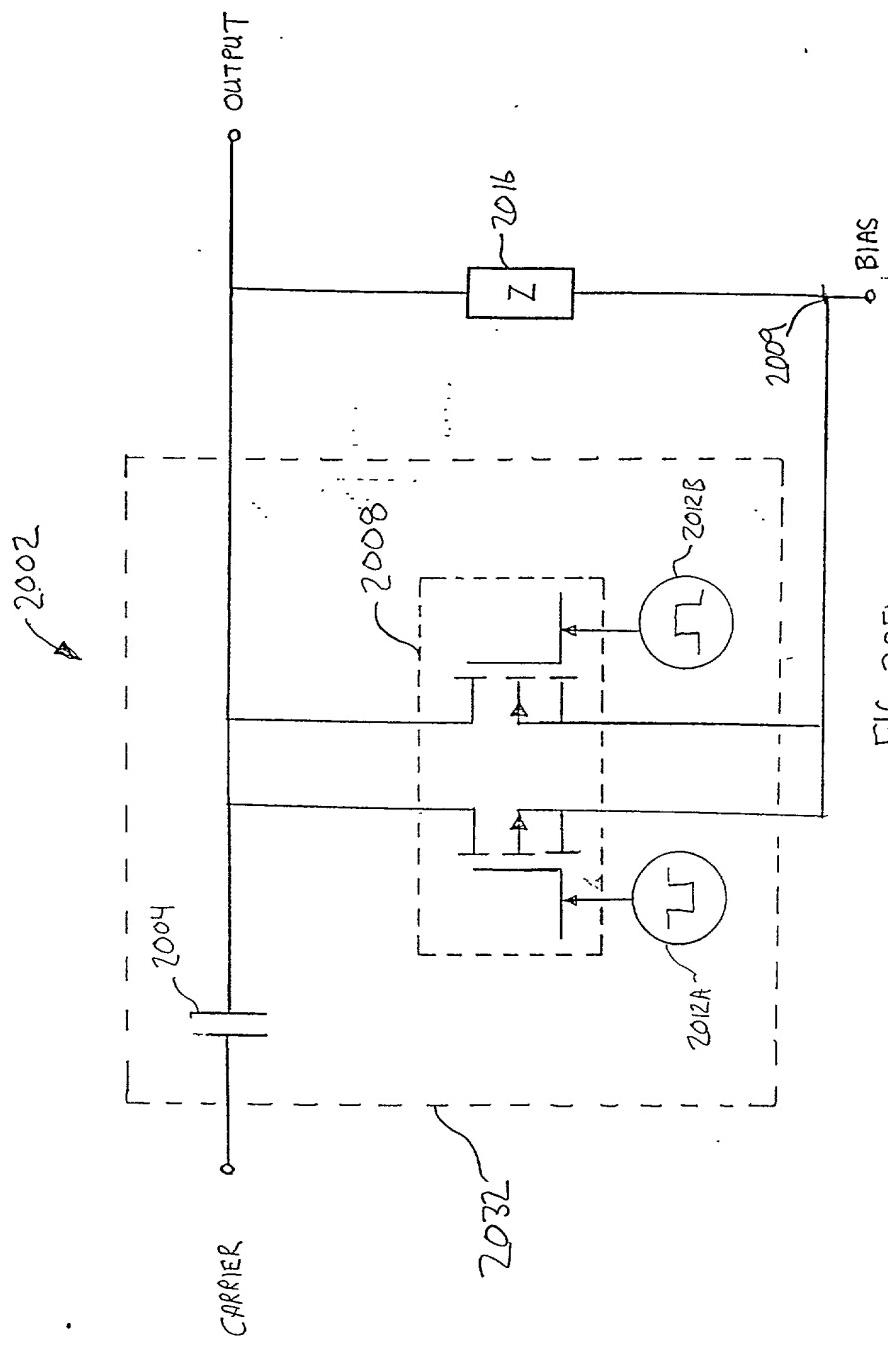
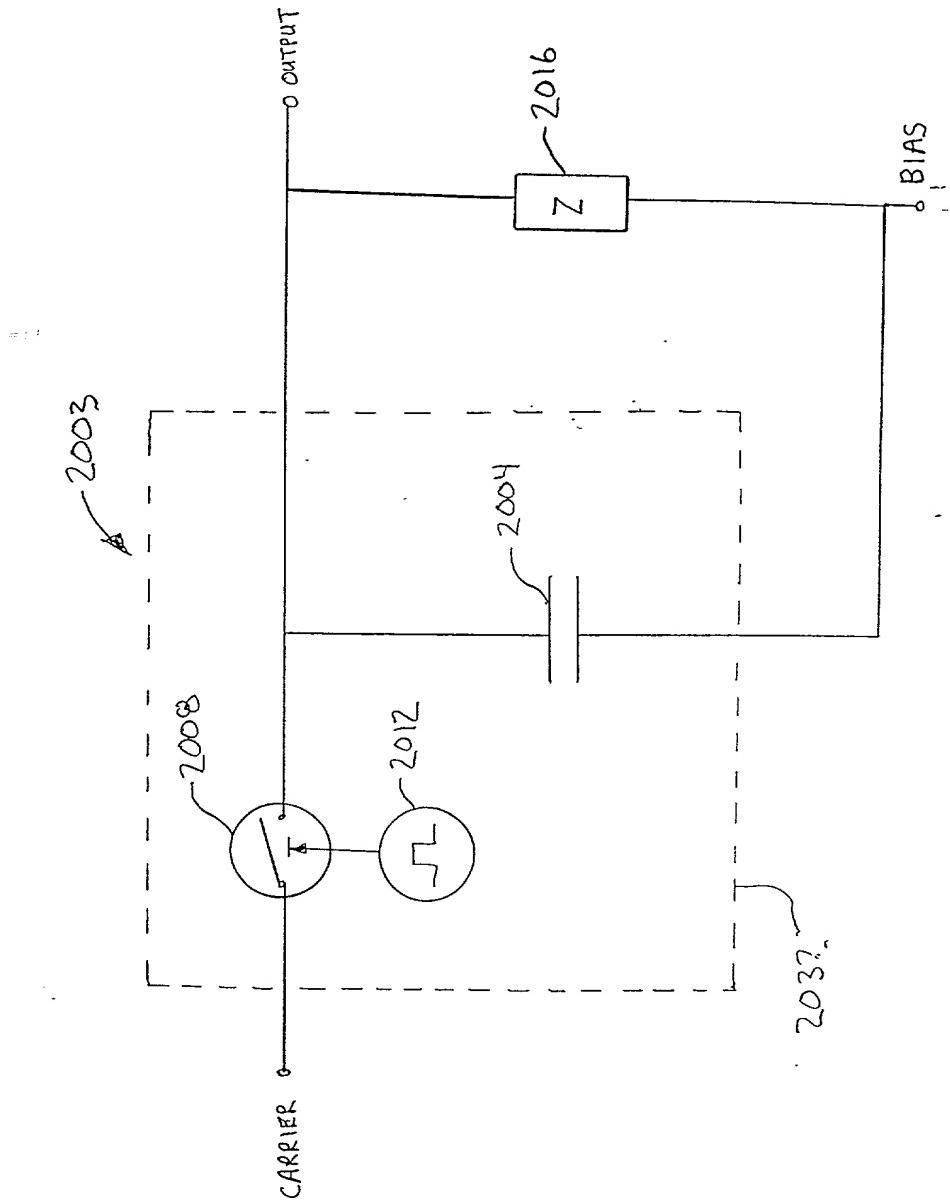
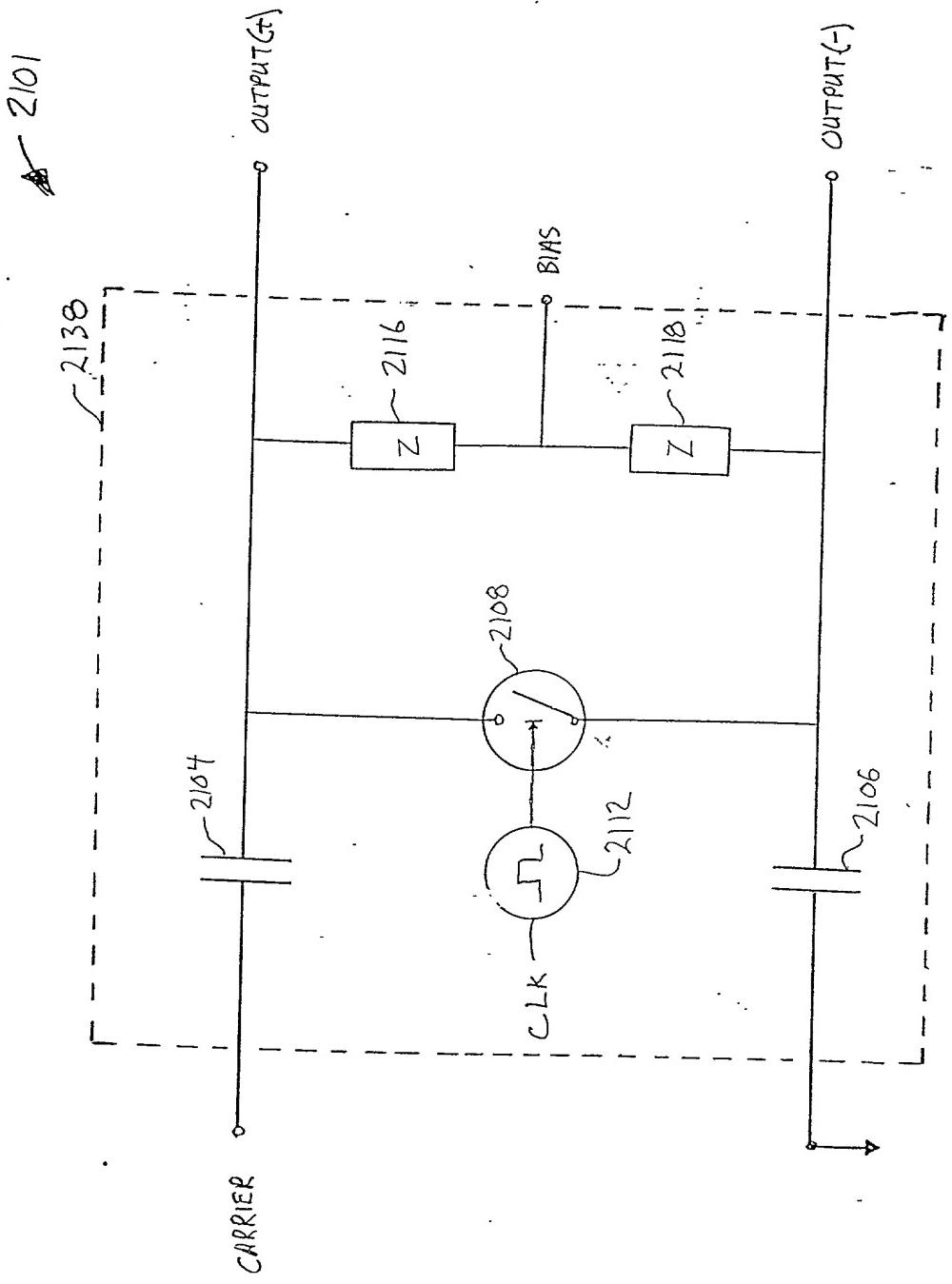


FIG. 20E



F16. 20F



F16.21

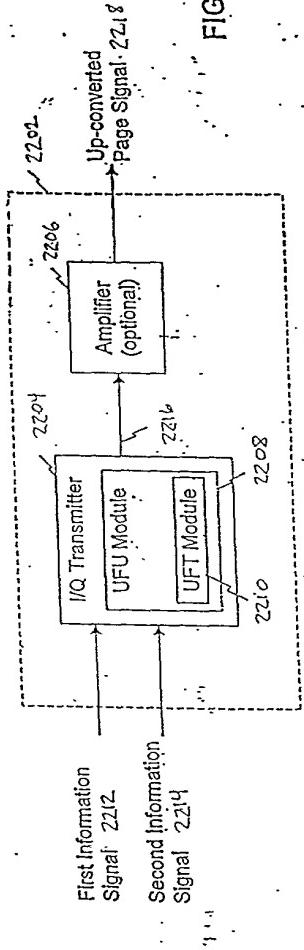


FIG. 22.

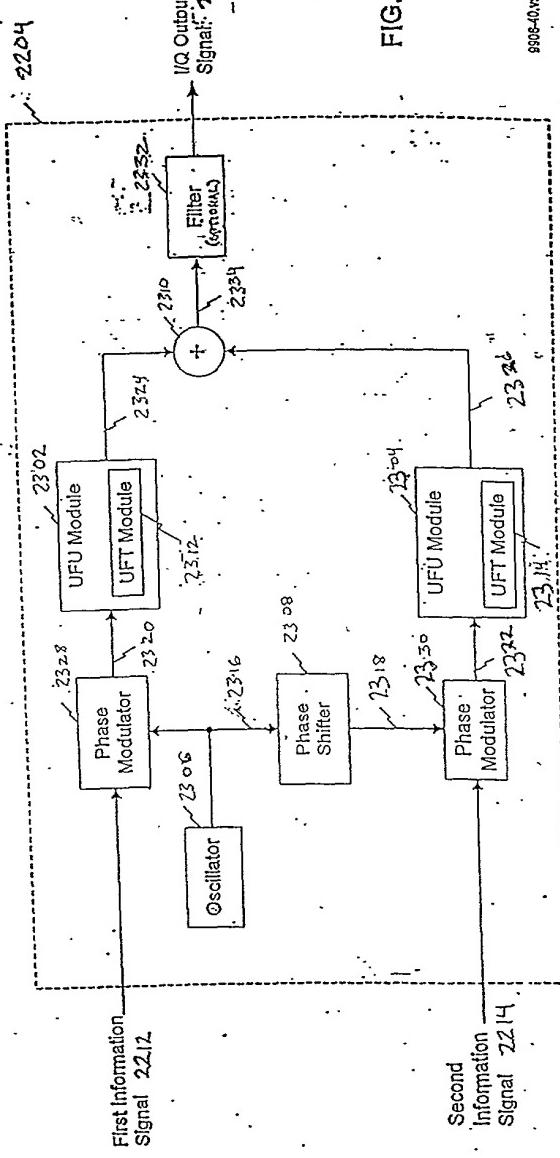


FIG. 23

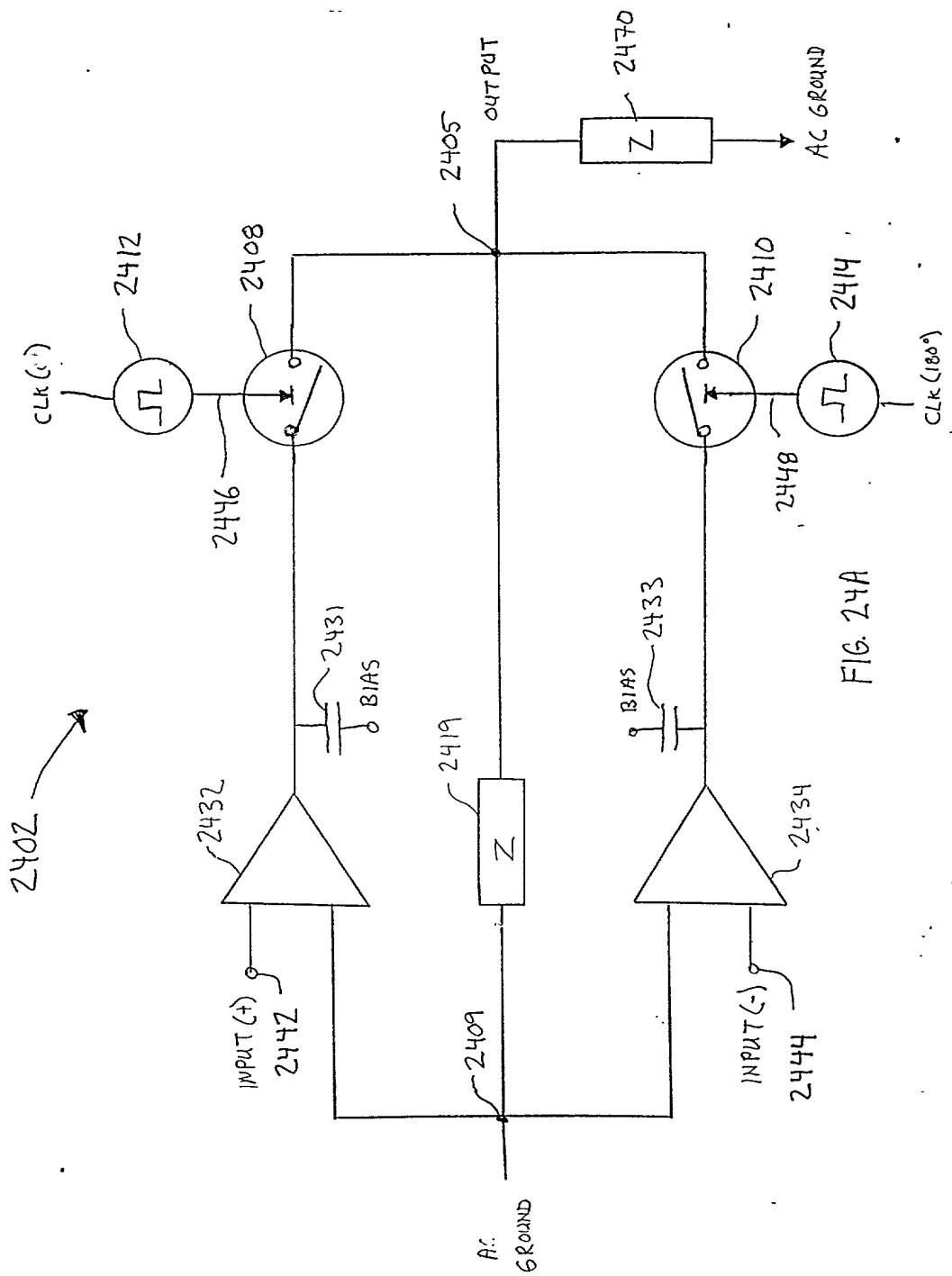
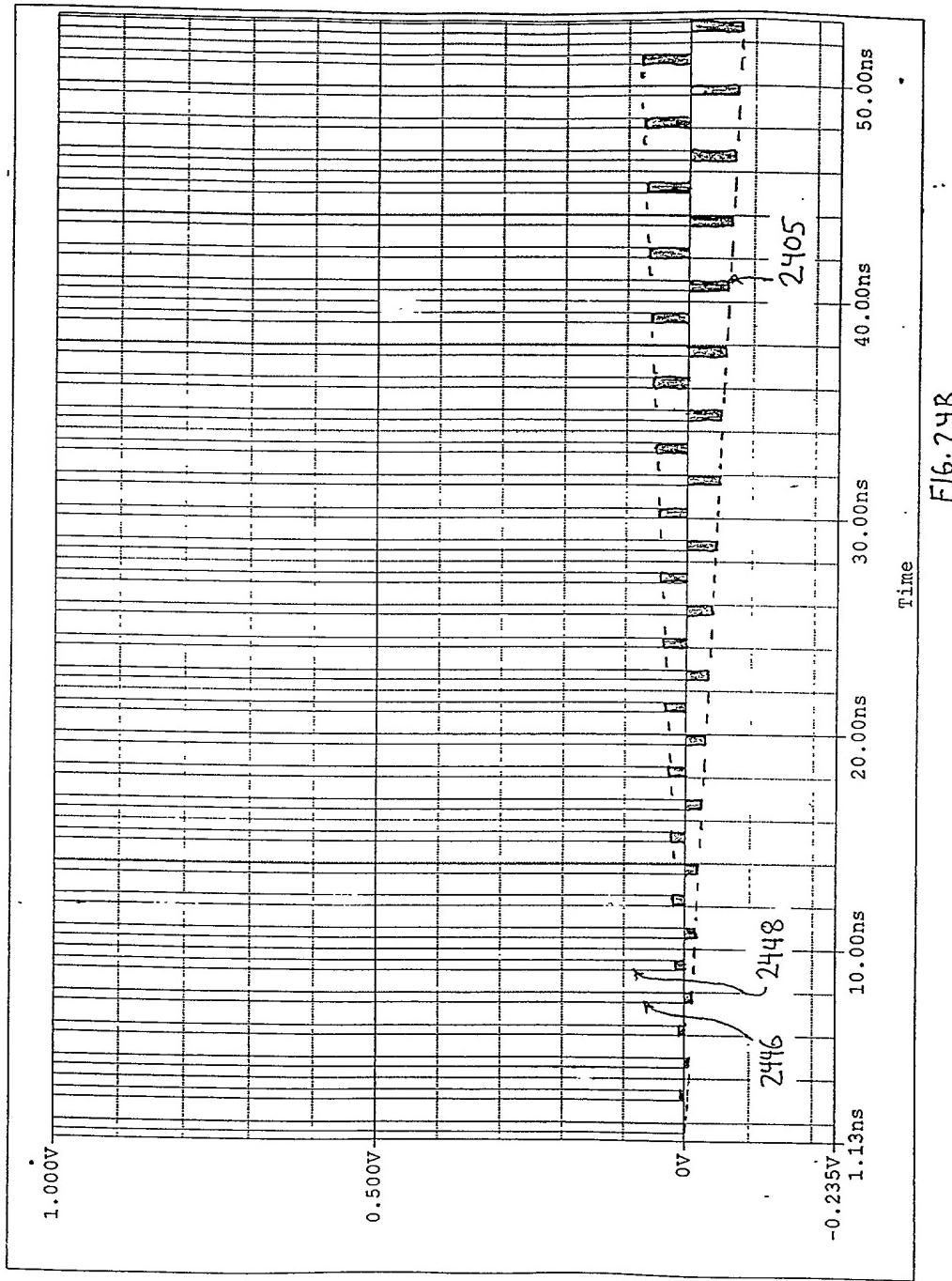


FIG. 24A

0916553511 093160



F16.24B

0 9 8 5 6 5 4 3 2 1

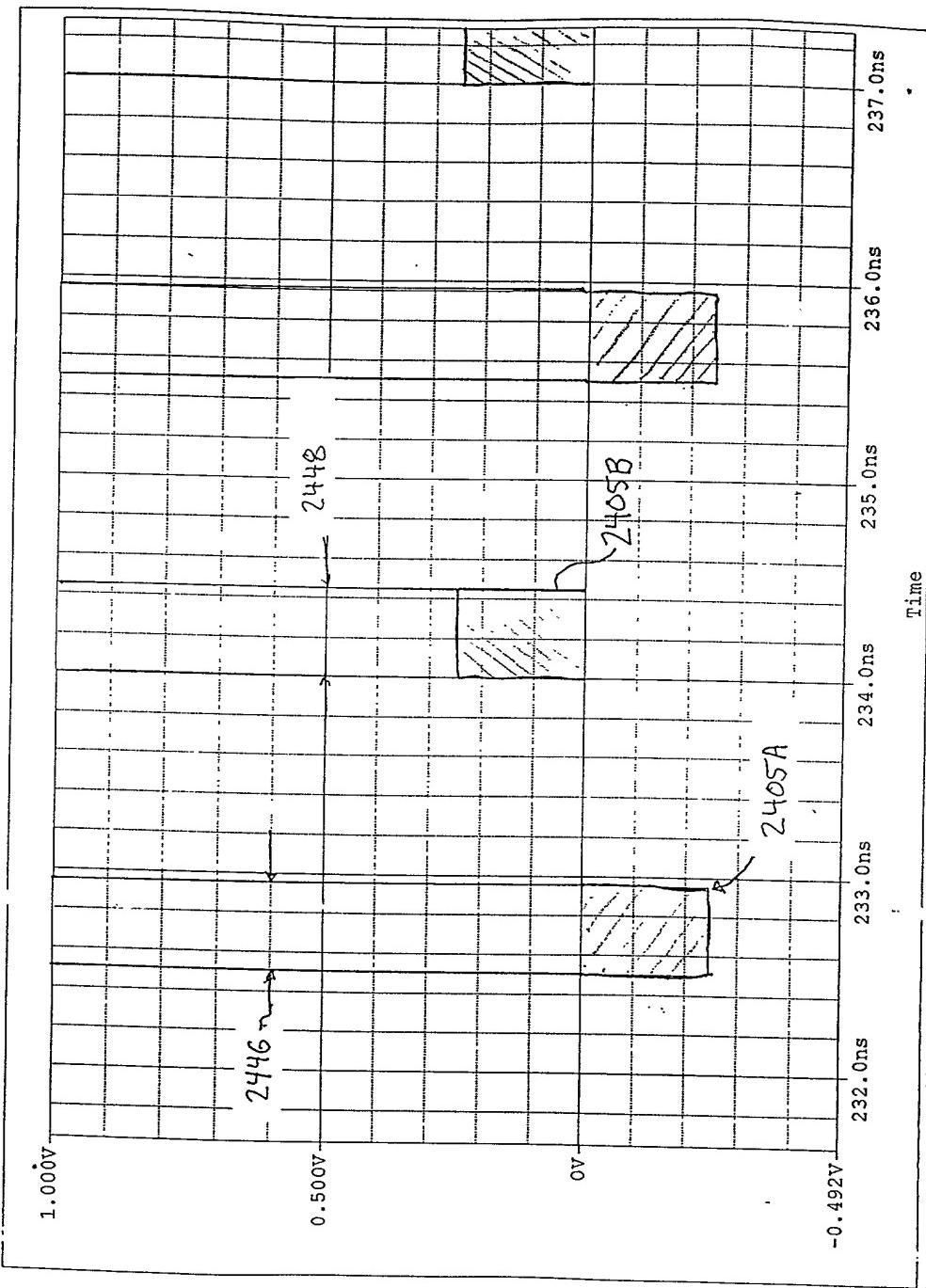


FIG. 24C

2005 2005 2005 2005 2005

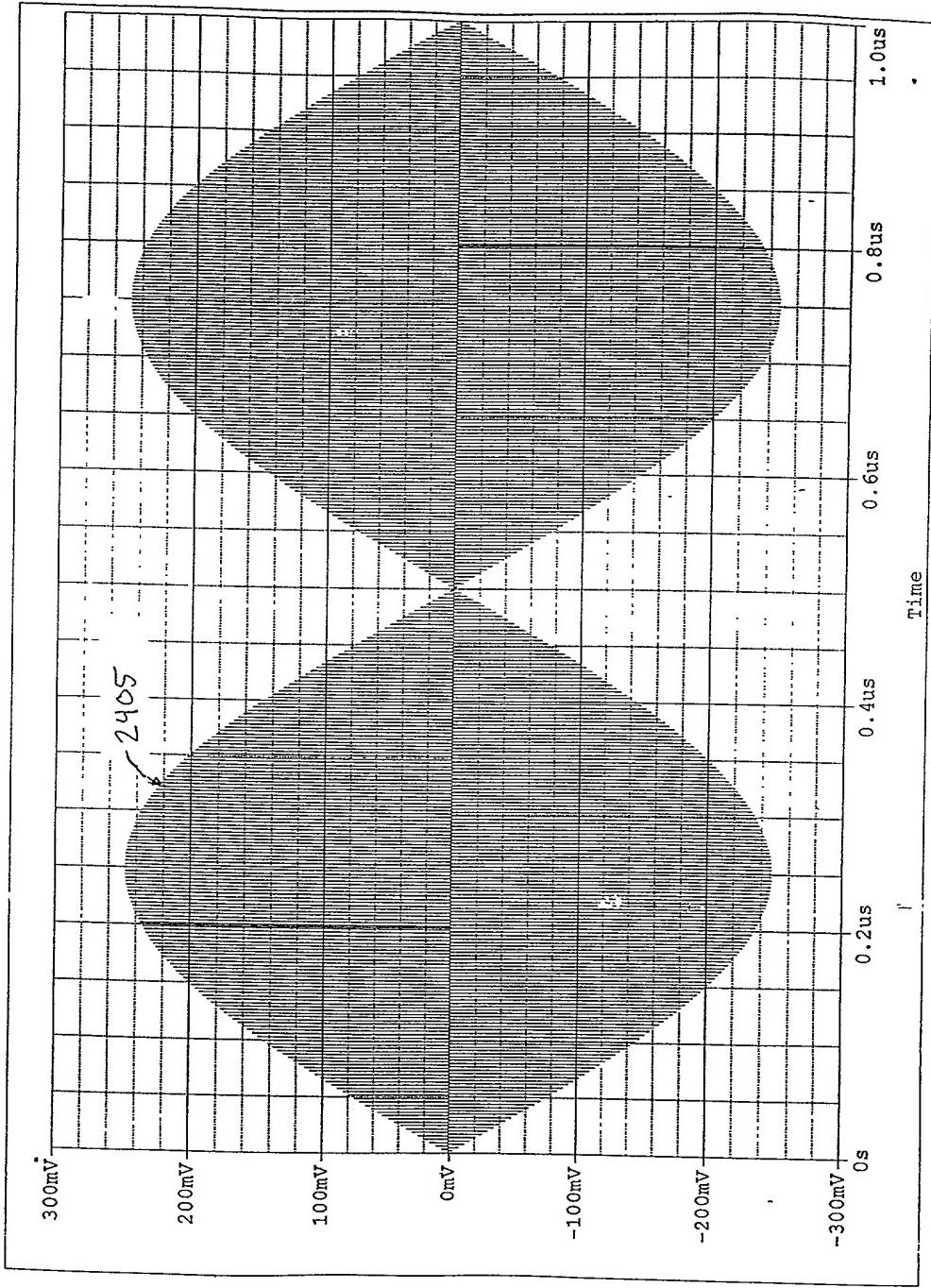


Fig. 24D

093556ES1 CES46C

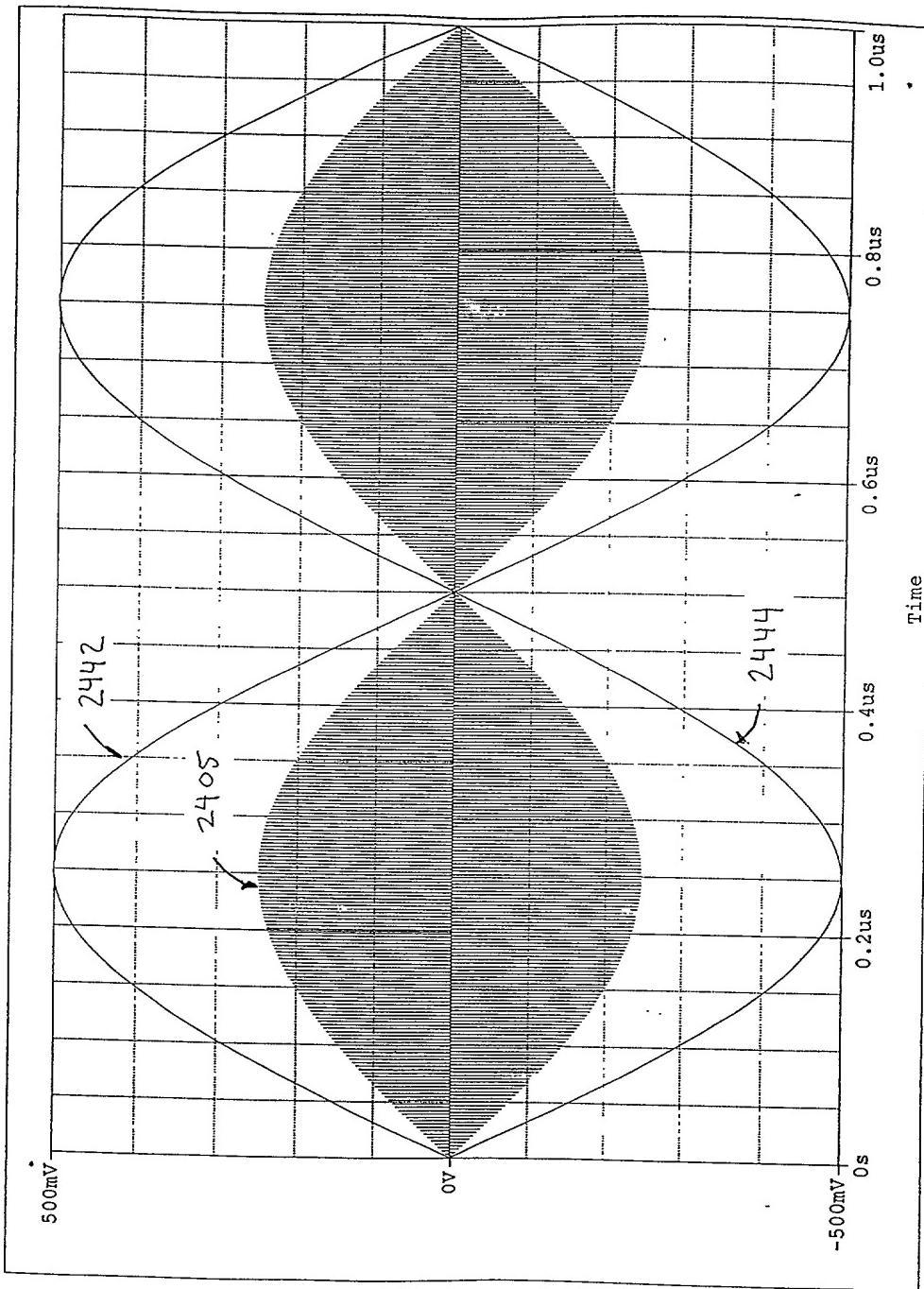


FIG. 24E

09855654 in GES 4.5 G

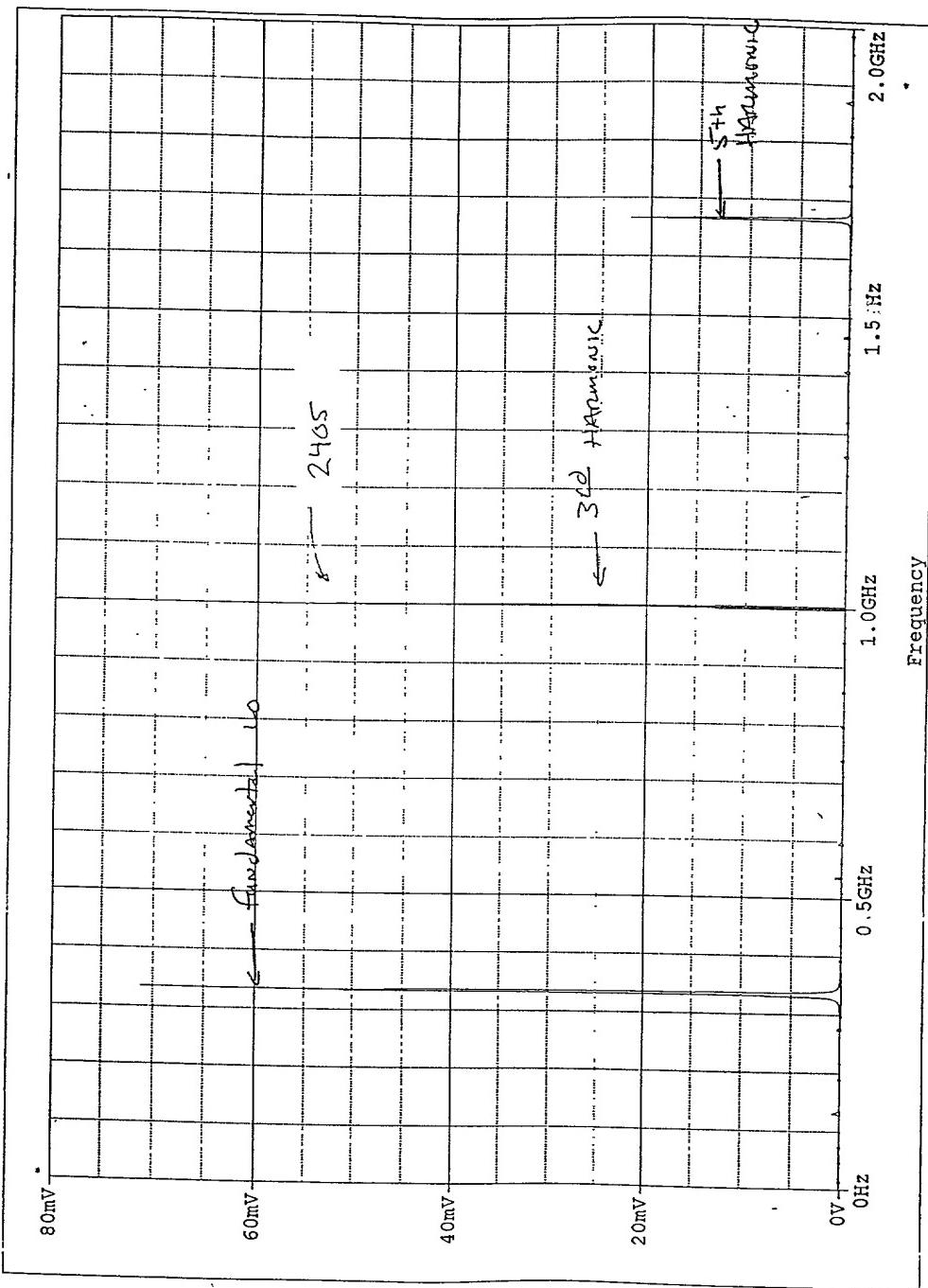
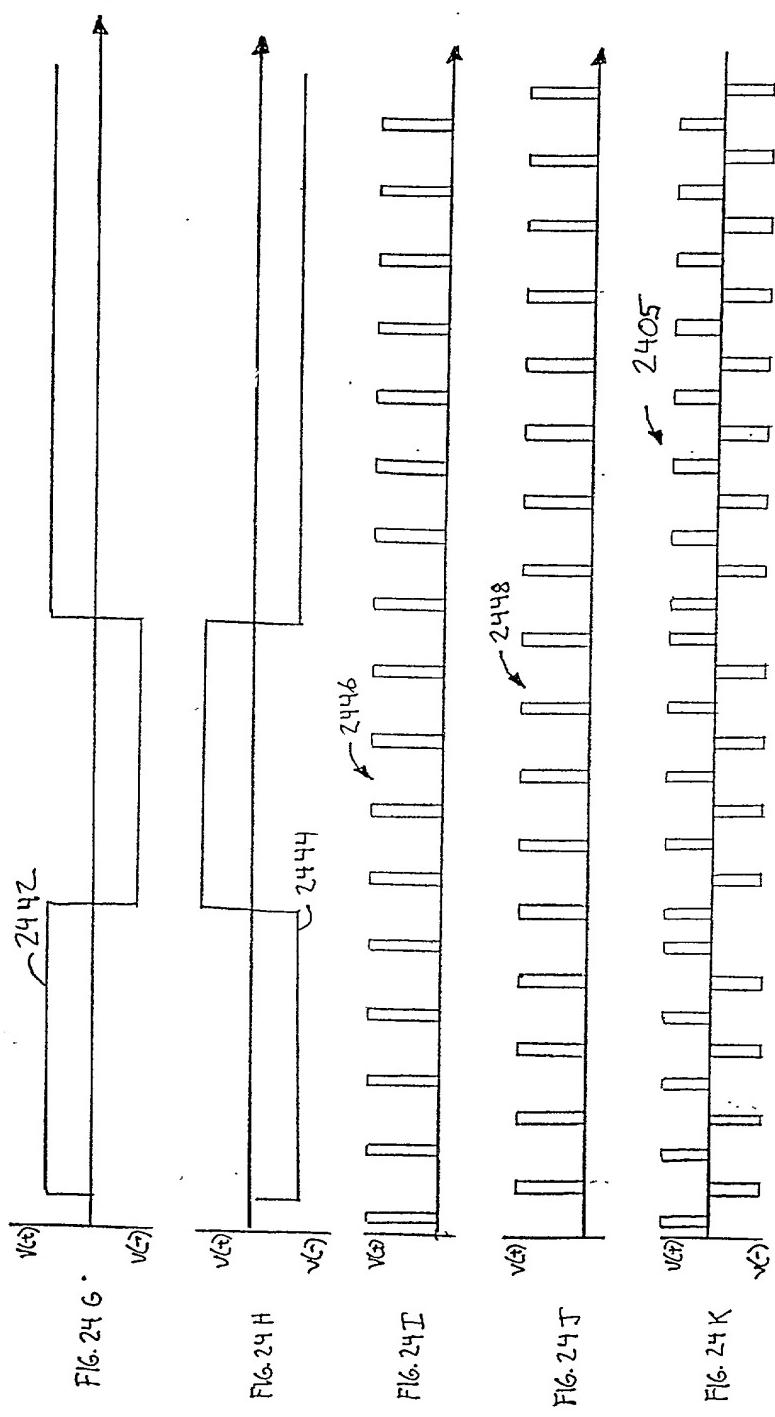
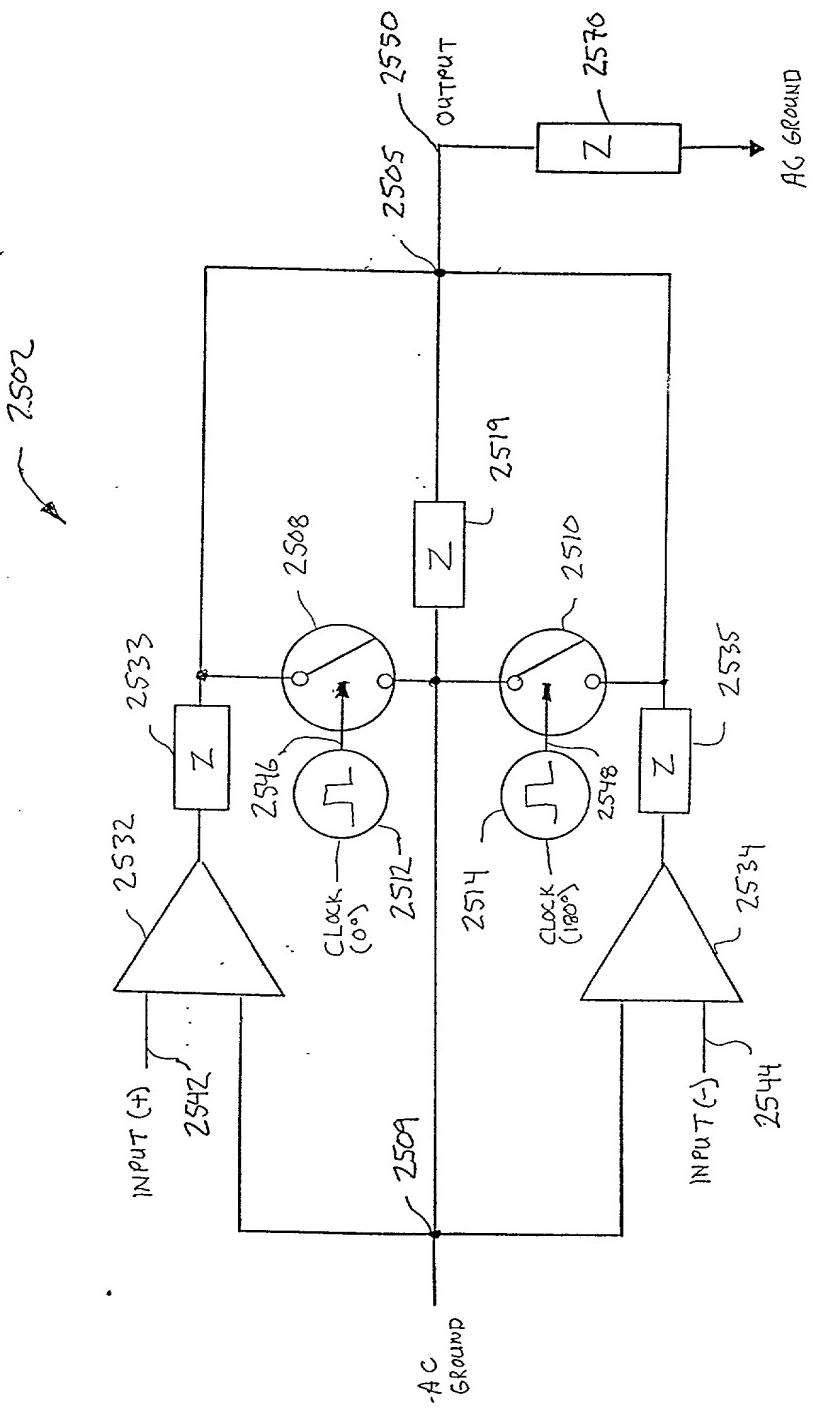


FIG. 24 F

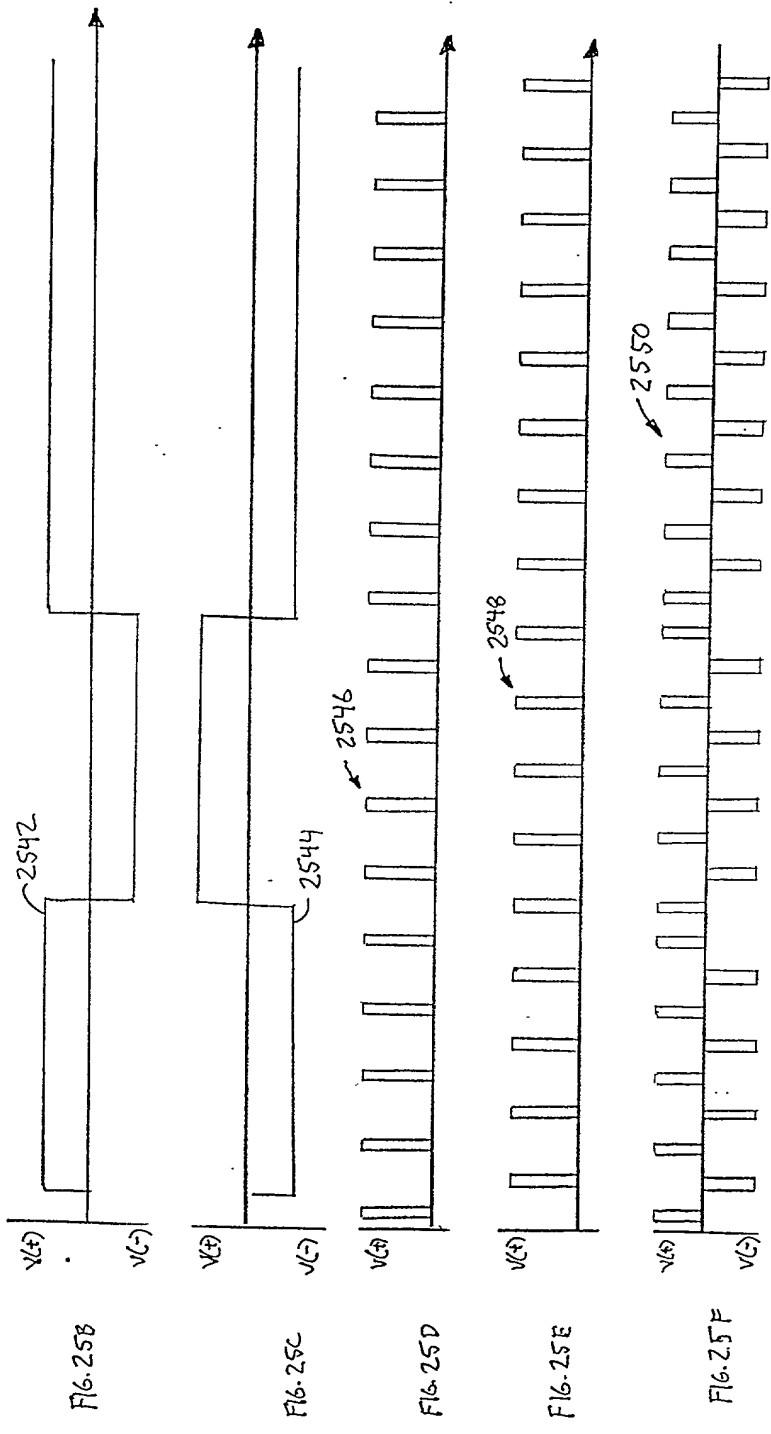




F16. 25A

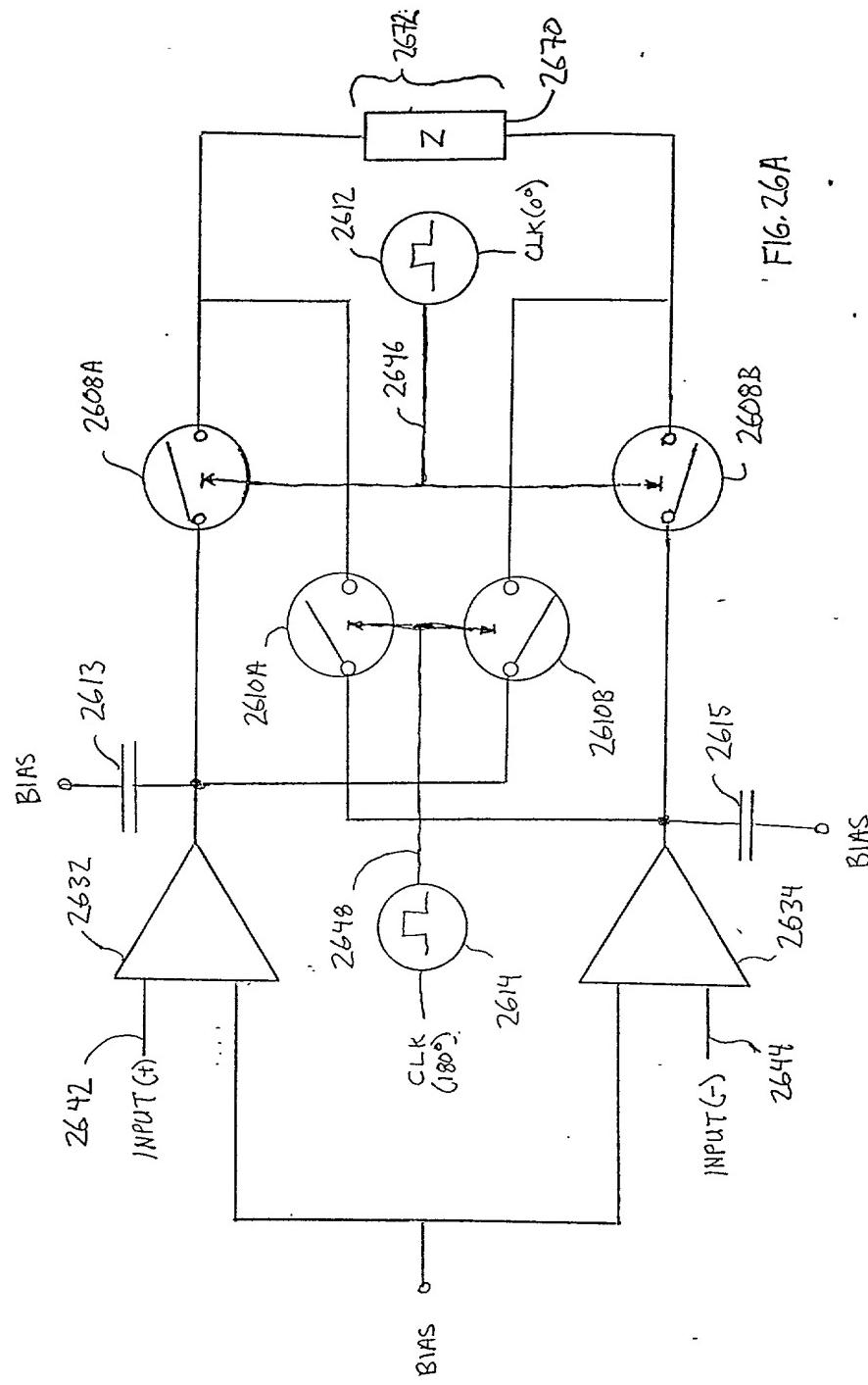
0 9 8 7 6 5 4 3 2 1 0 9 8 7 6 5 4 3 2 1 0

0 9 3 5 5 3 5 1 0 3 5 4 6 0



00965555555555555555555555555555

2662



0 9 8 5 5 6 5 4 0 5 1 5 0

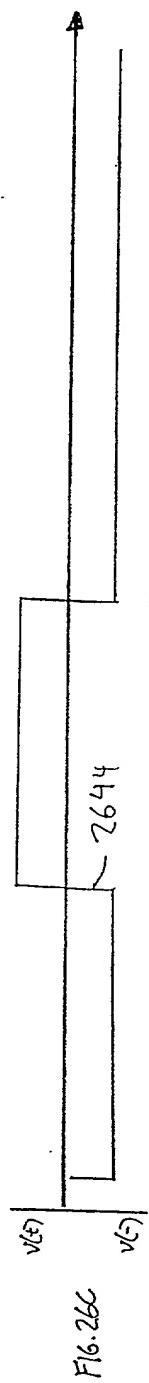
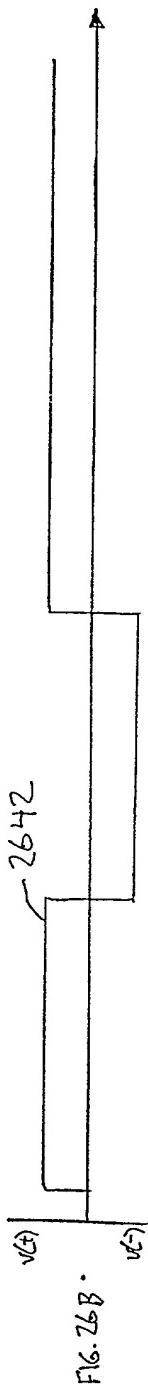
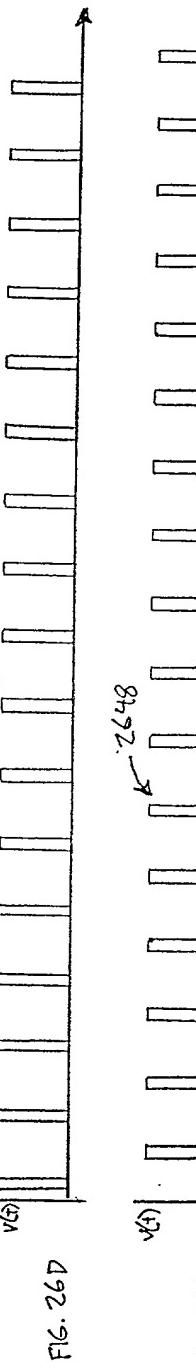
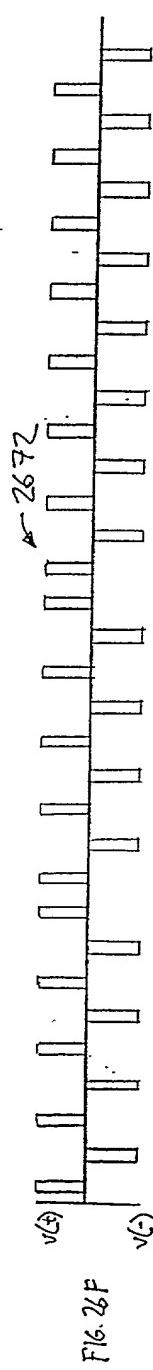
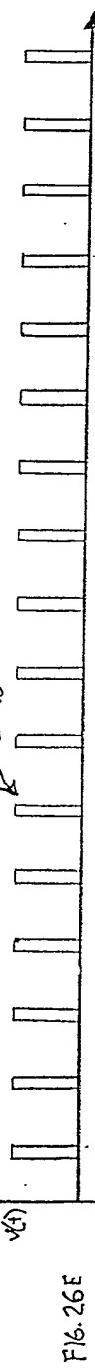


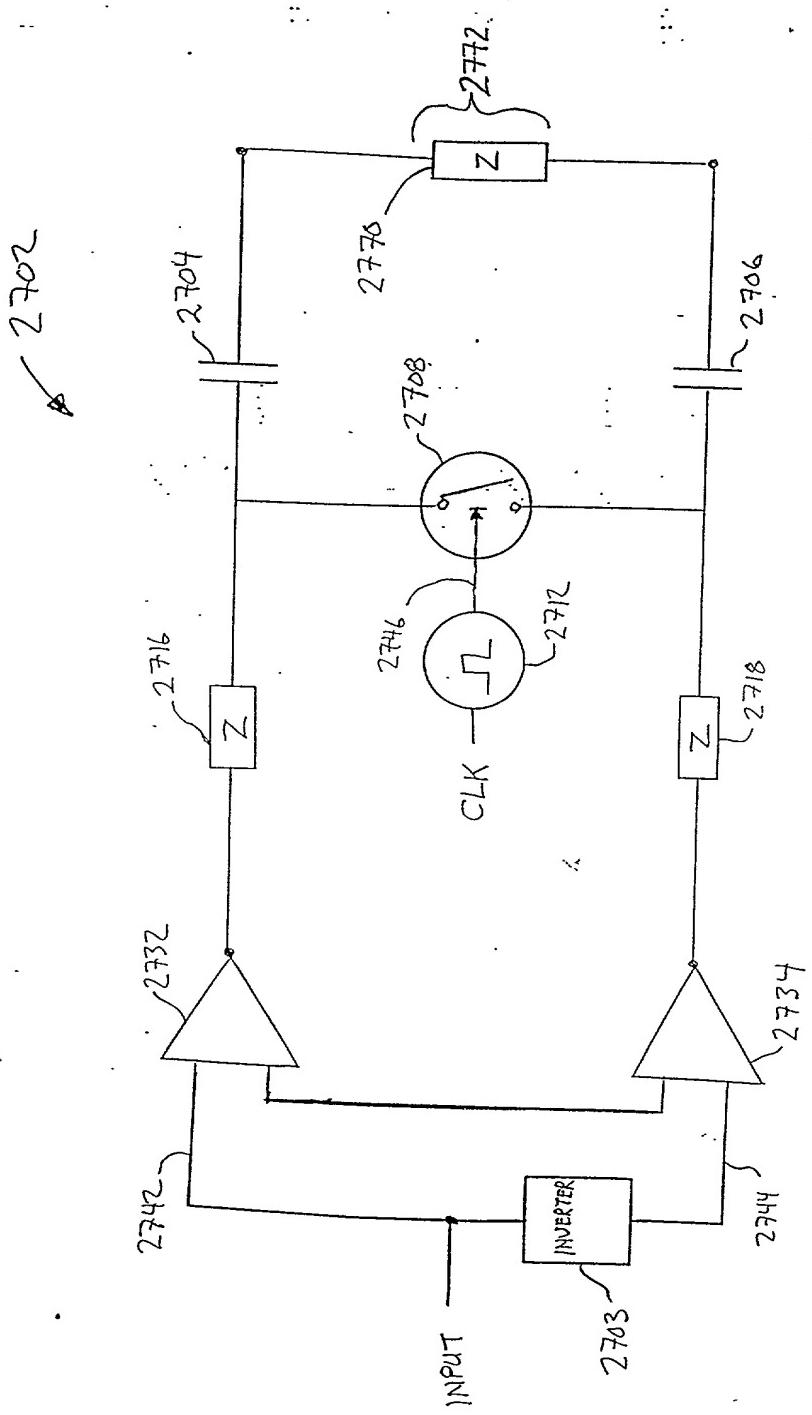
FIG. 26D



2648



2672



F16.27A

09355854 05460

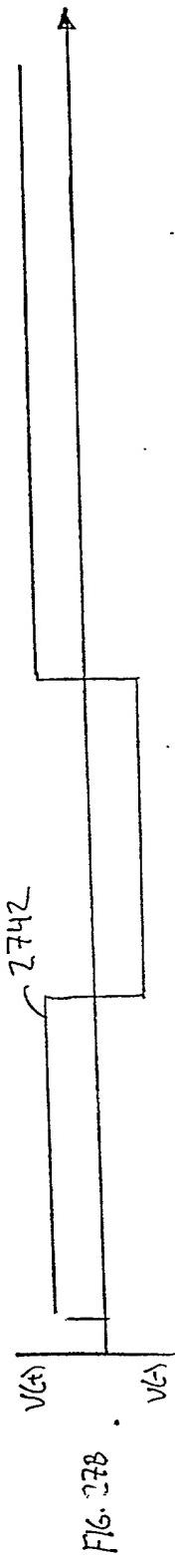


Fig. 27B

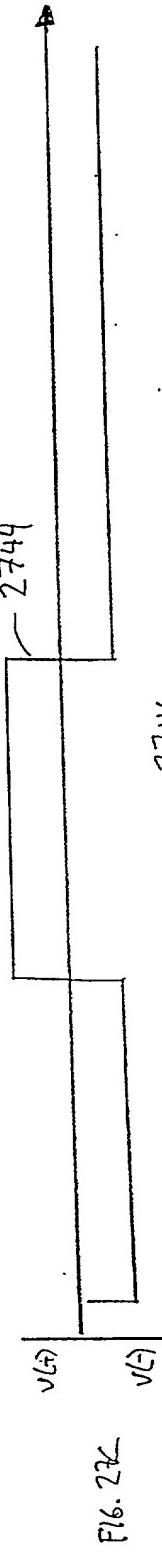


Fig. 27C

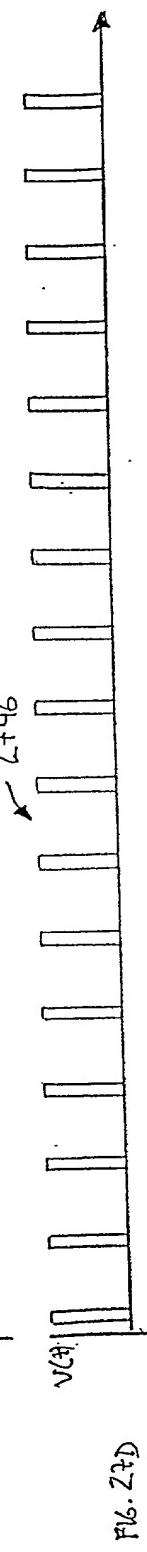


Fig. 27D

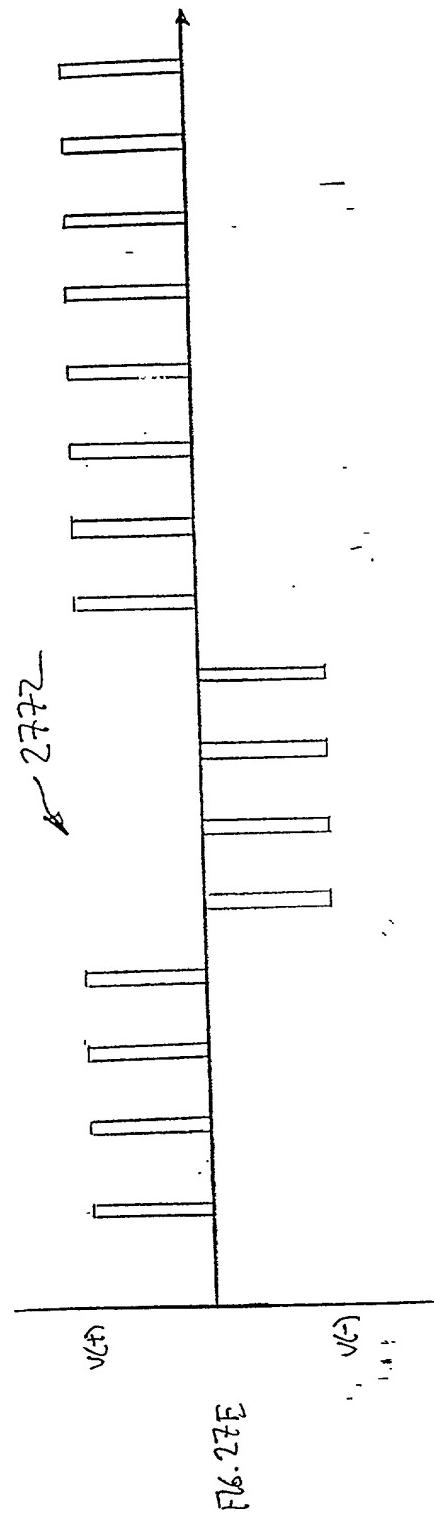


Fig. 27E

0985566
Page 15

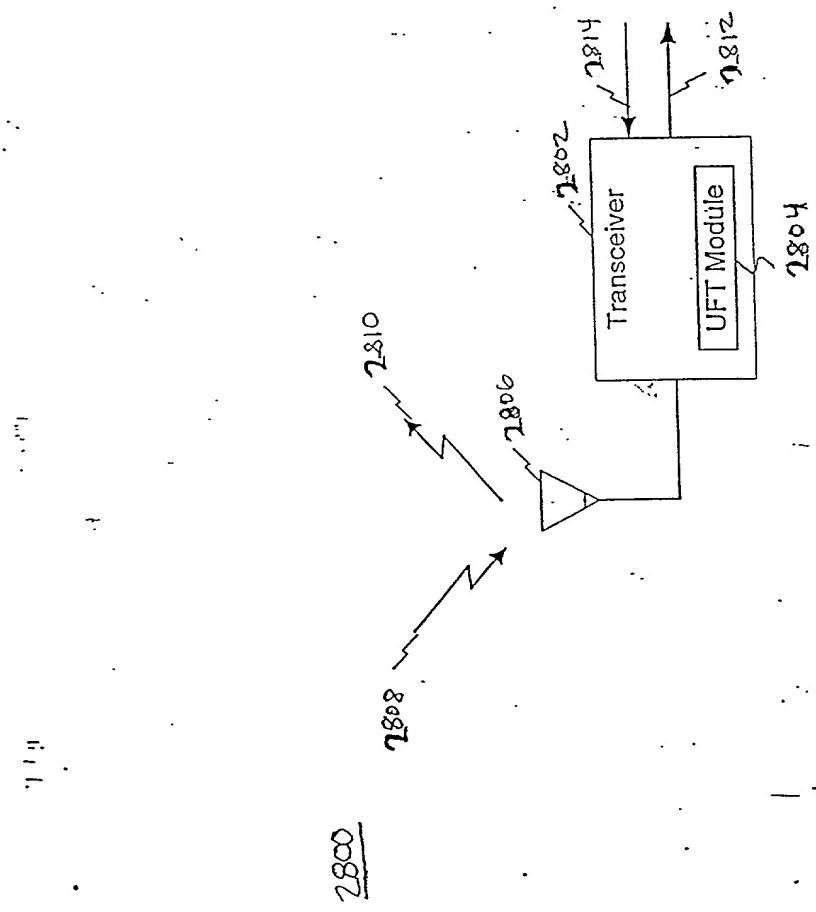


FIG. 28

FIG. 29

-EXEMPLARY RECEIVER FOR
UNIVERSAL FREQUENCY DOWN-CONVERSION

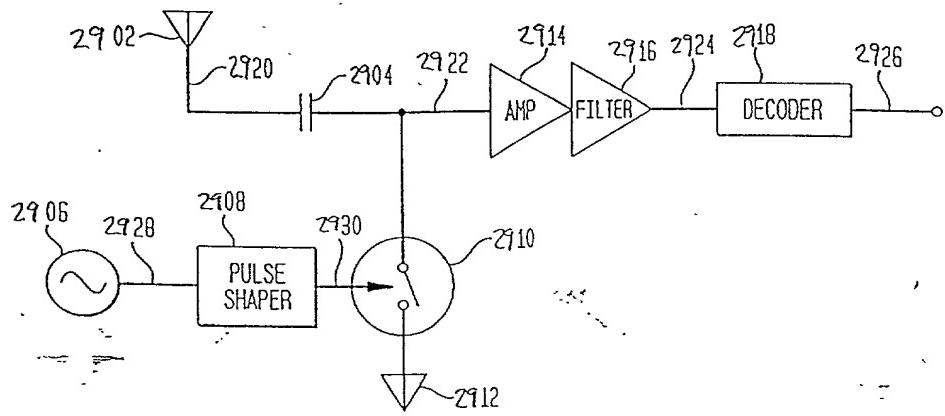


FIG. 30

EXEMPLARY TRANSMITTER USING THE PRESENT INVENTION

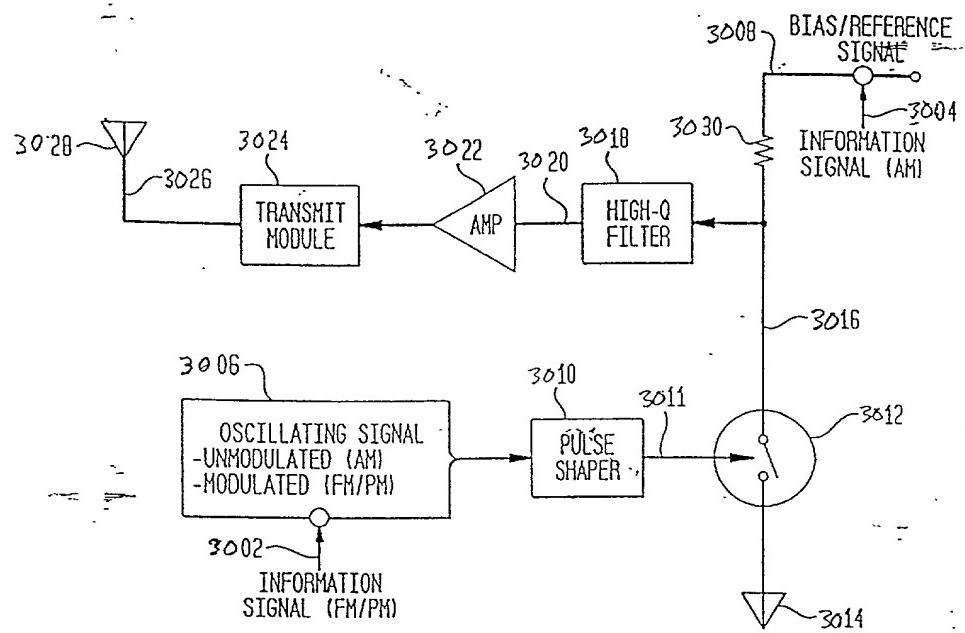
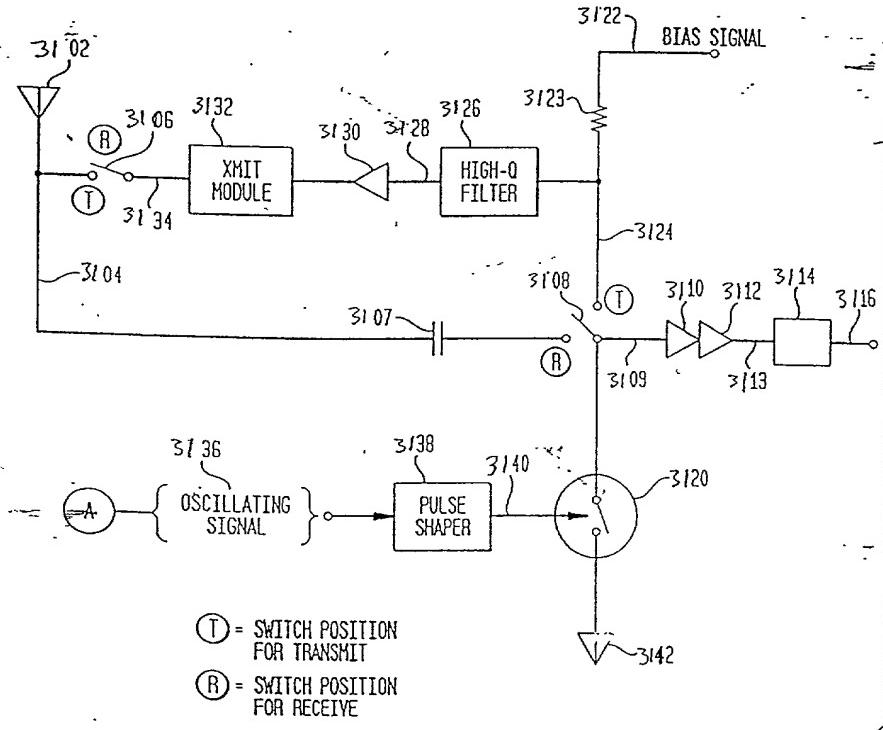


FIG. 31A

TRANSMITTER USING PRESENT INVENTION IN A
HALF DUPLEX COMMUNICATIONS CIRCUIT WITH A
UNIVERSAL FREQUENCY DOWN-CONVERTER (FM & PH)



09855654 098162

FIG. 31B

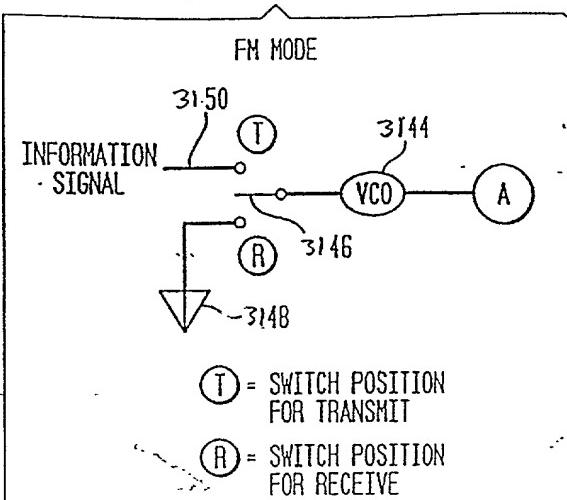
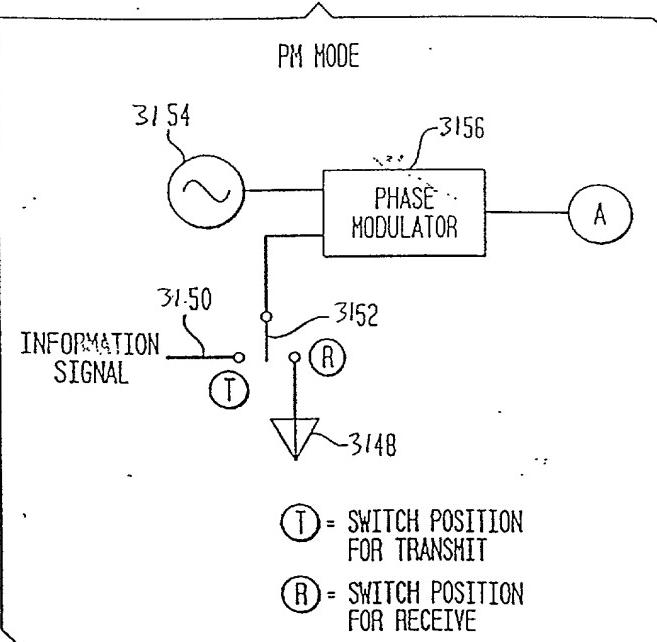


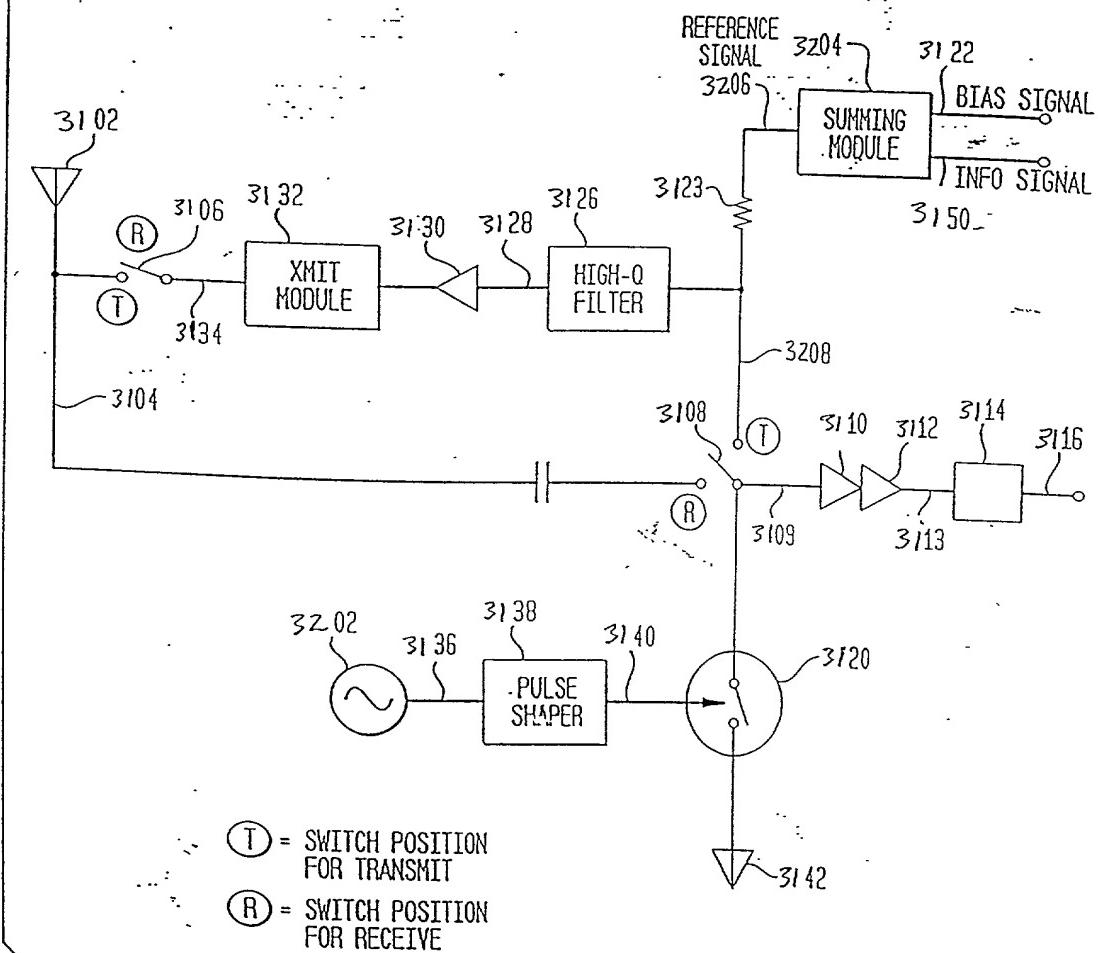
FIG. 31C



09355651 093460

FIG. 32

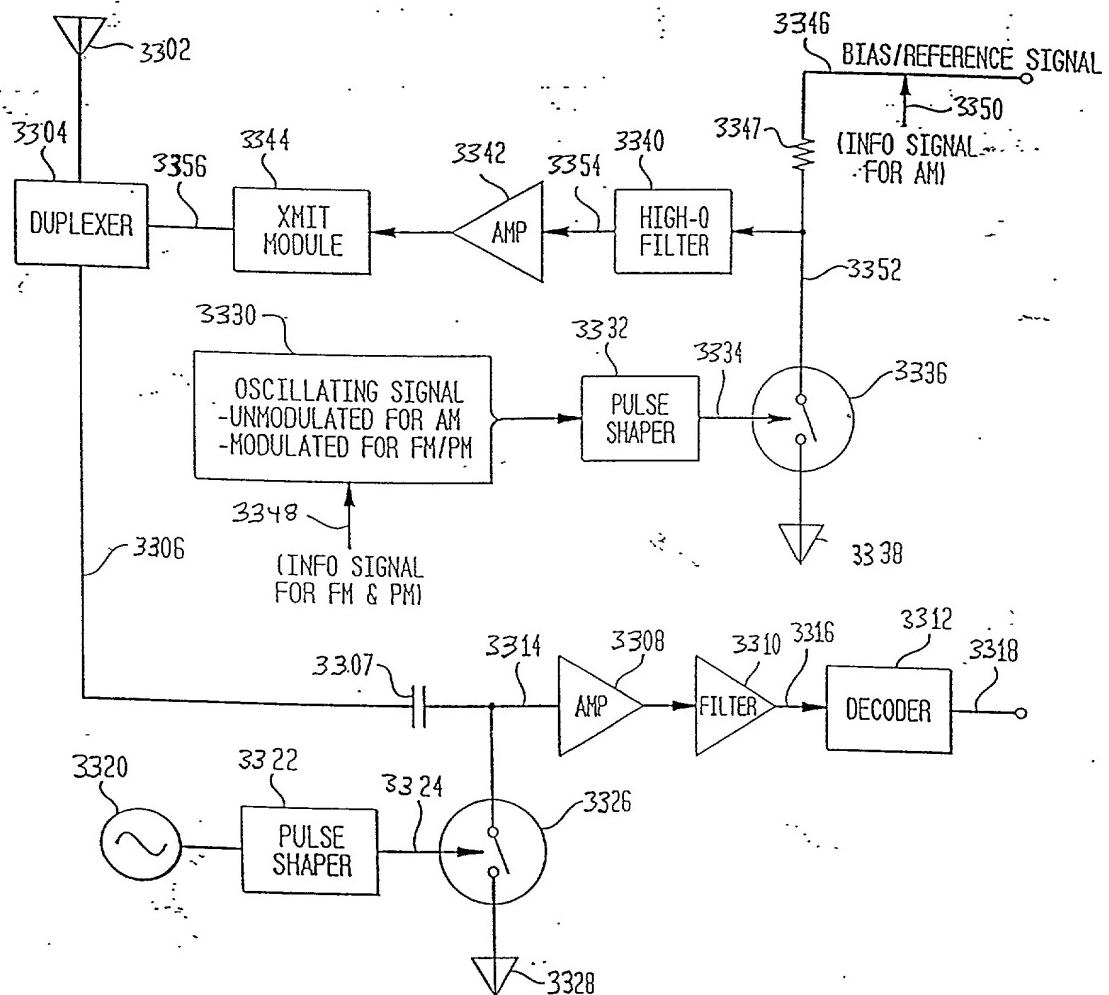
TRANSMITTER USING PRESENT INVENTION IN
A HALF-DUPLEX COMMUNICATIONS CIRCUIT
WITH A UNIVERSAL FREQUENCY DOWN-CONVERTER(AM)



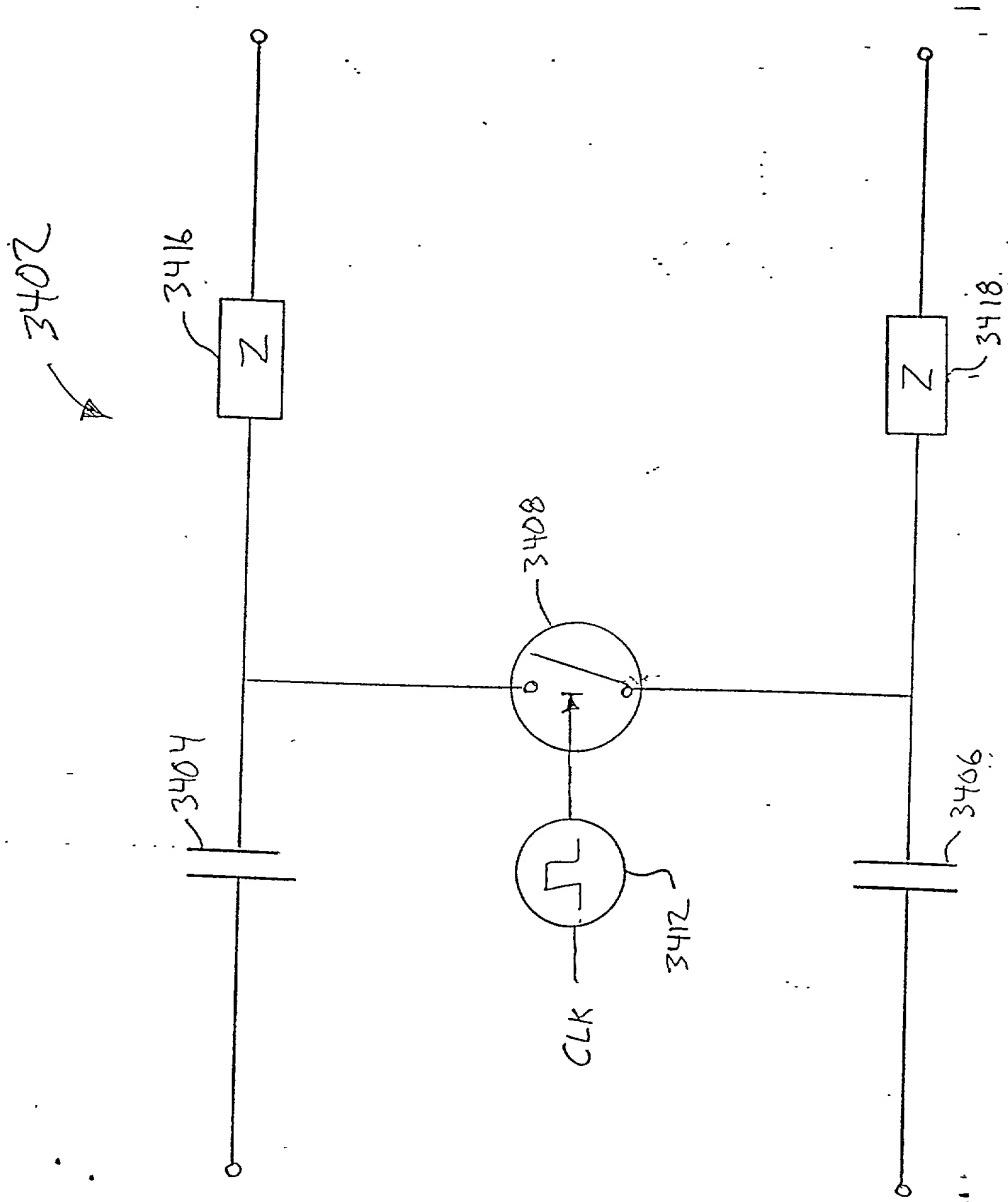
0 9 8 5 5 6 5 3 1 0 5 4 6 0 0 0

FIG. 33

TRANSMITTER USING PRESENT INVENTION IN
FULL DUPLEX COMMUNICATIONS CIRCUIT WITH
UNIVERSAL FREQUENCY DOWN-CONVERTER



09655554 0334600



F16.34

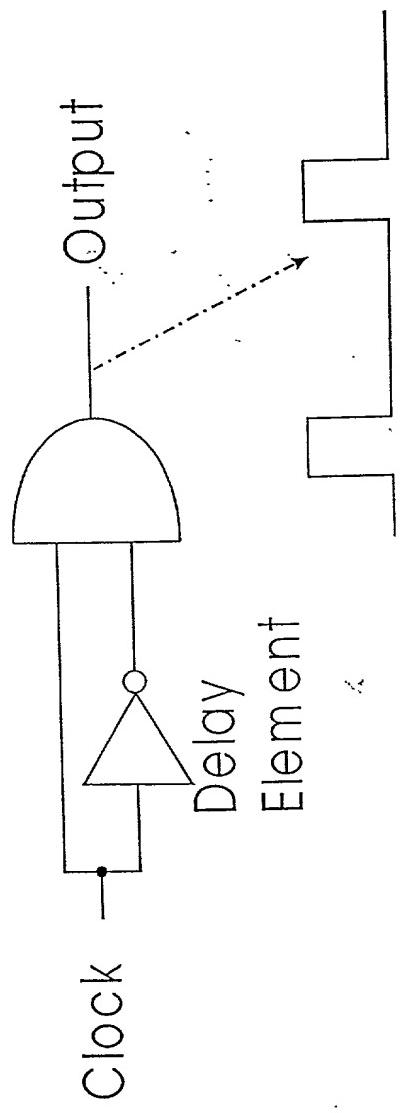
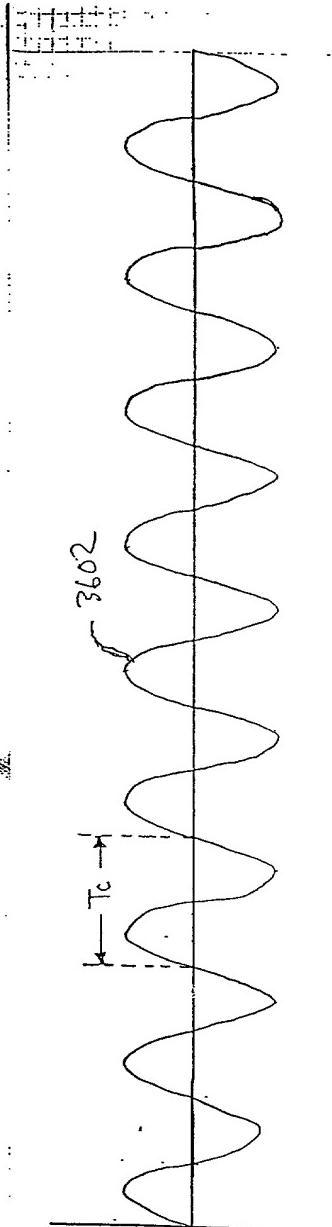


Fig. 35



F16.36

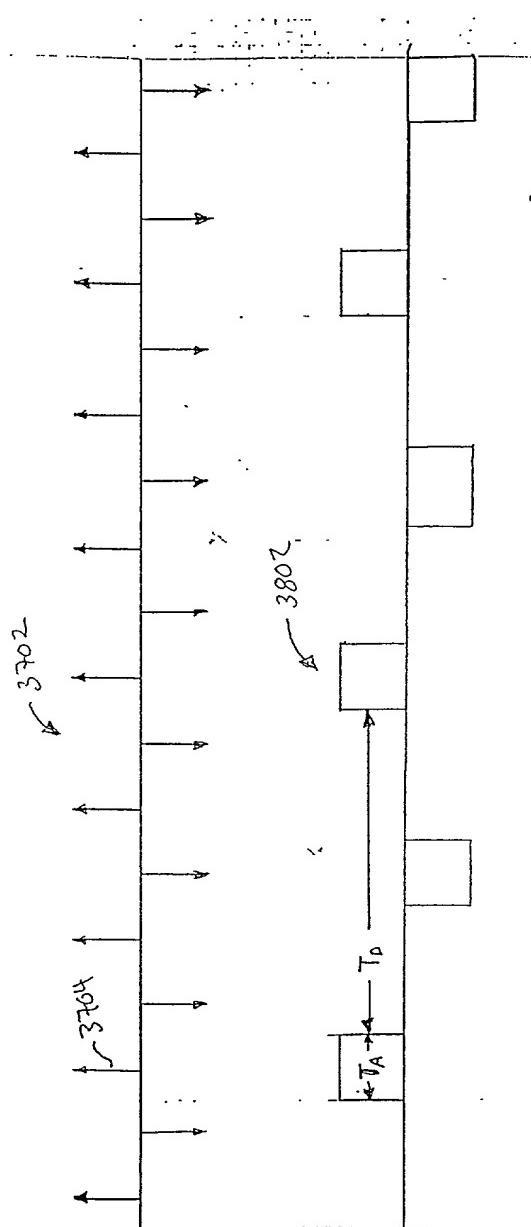
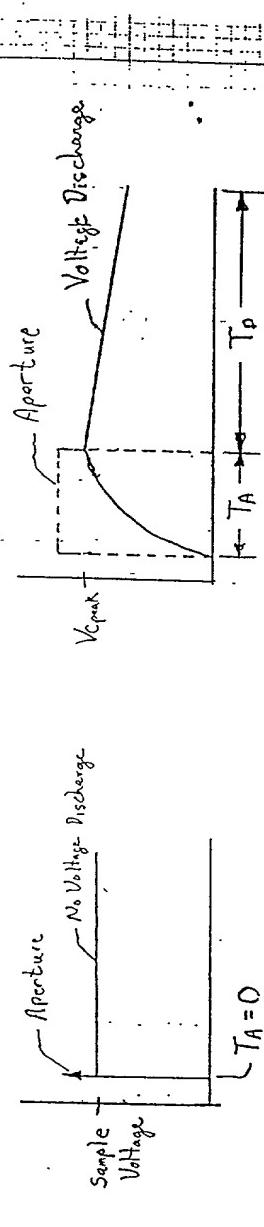
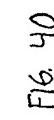


Fig. 38



F16.39



11

0.98553353 0.951600

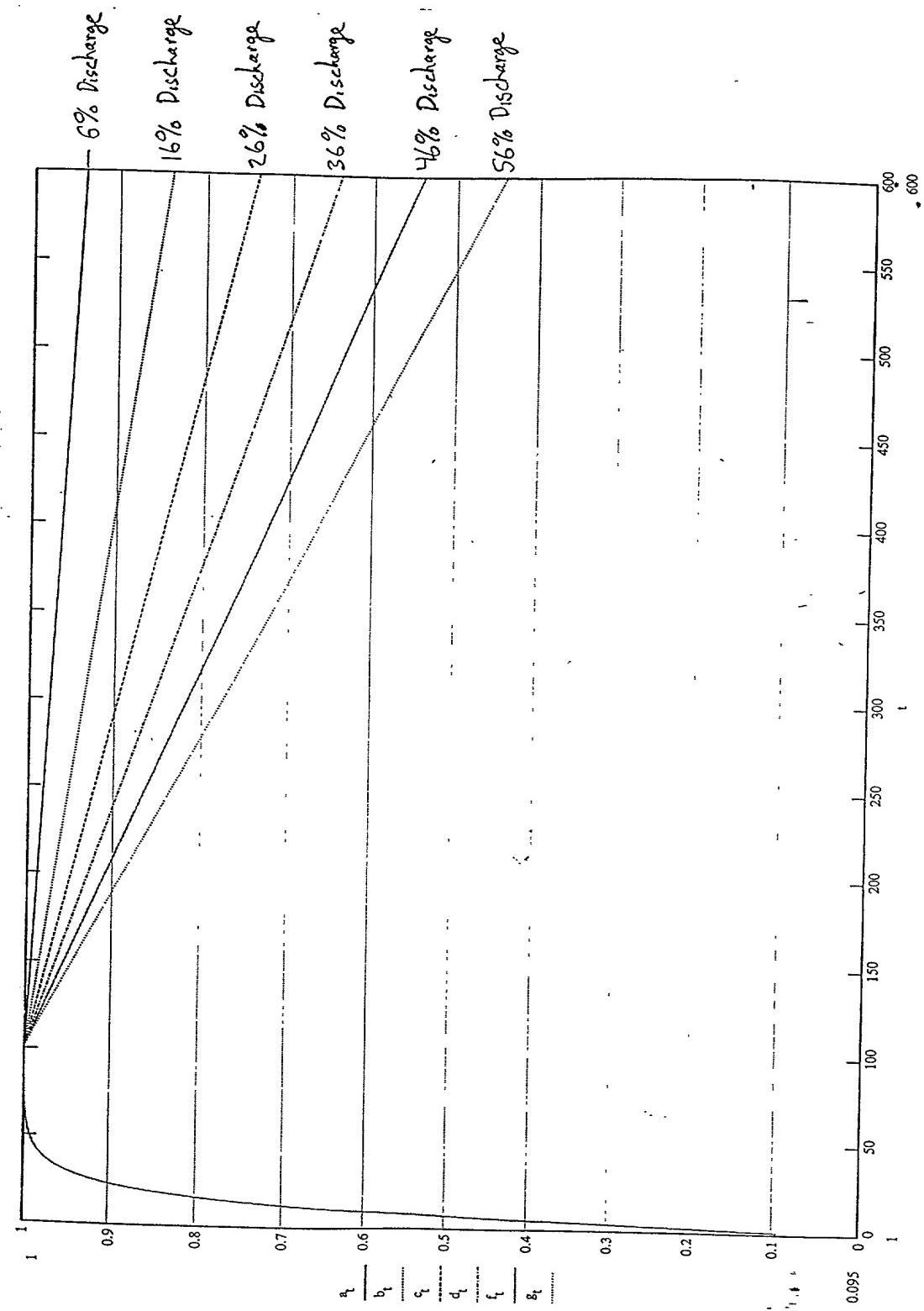
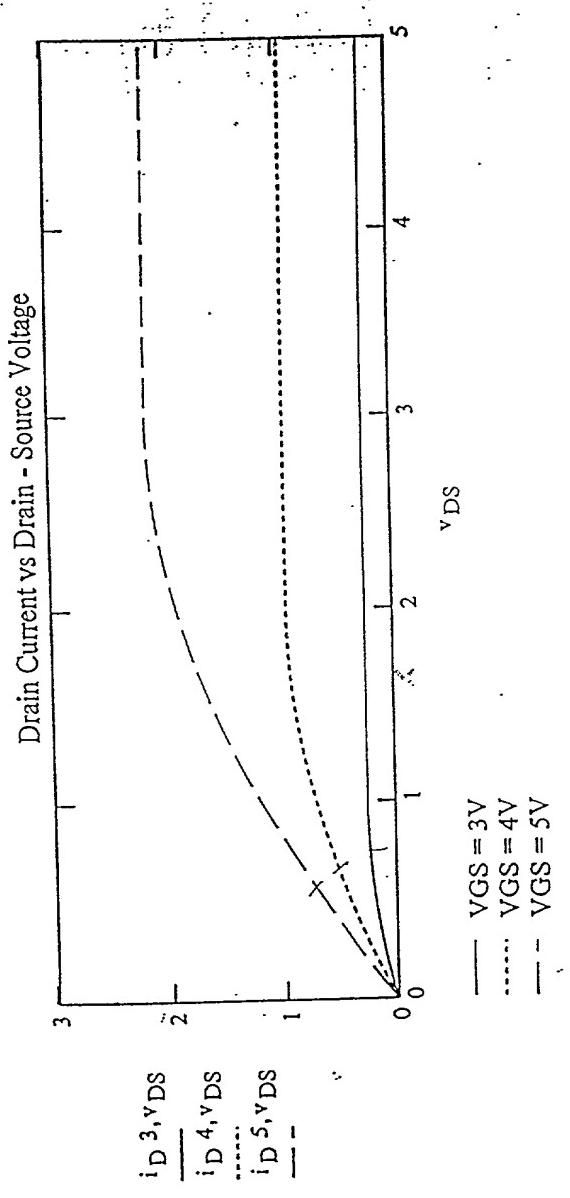


FIG. 41



F16 42

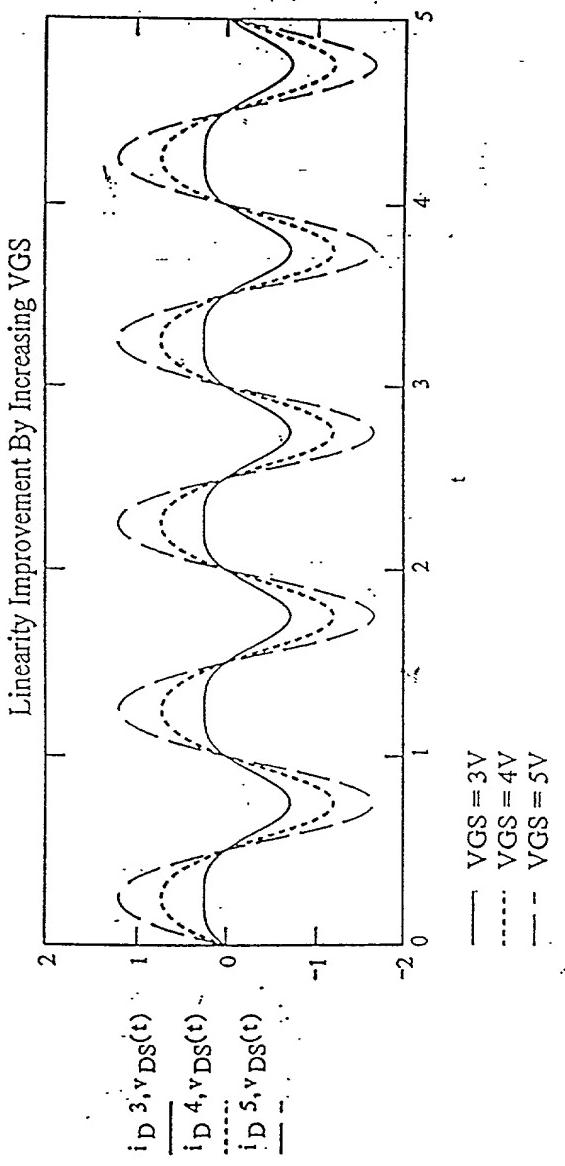


Fig. 43

0 6 2 8 8 2 8 8 2 8 8 0

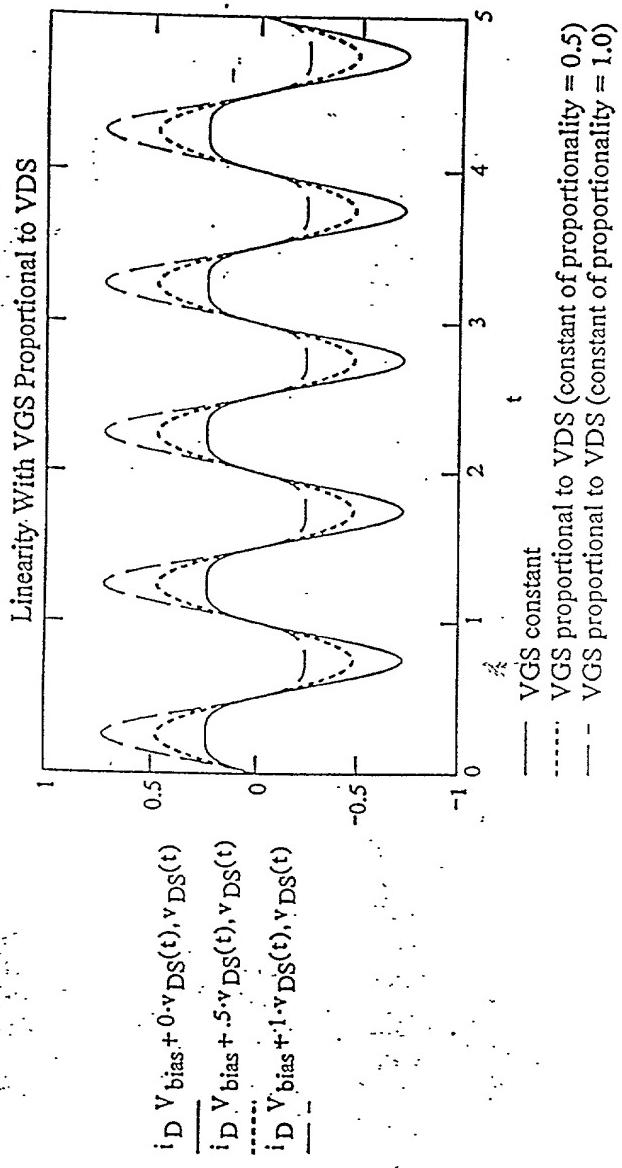


Fig 44

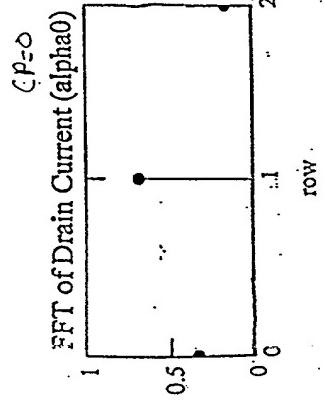


FIG. 45A

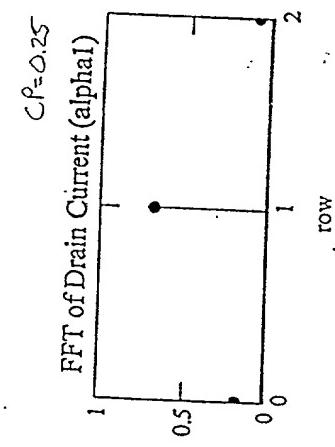


FIG. 45B

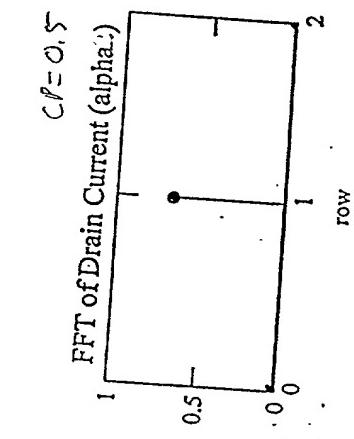


FIG. 45C

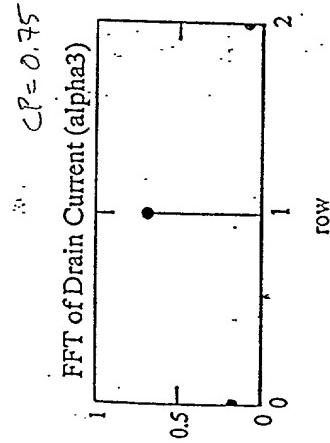


FIG. 45D

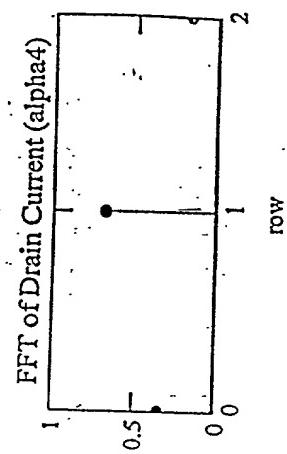


FIG. 45E

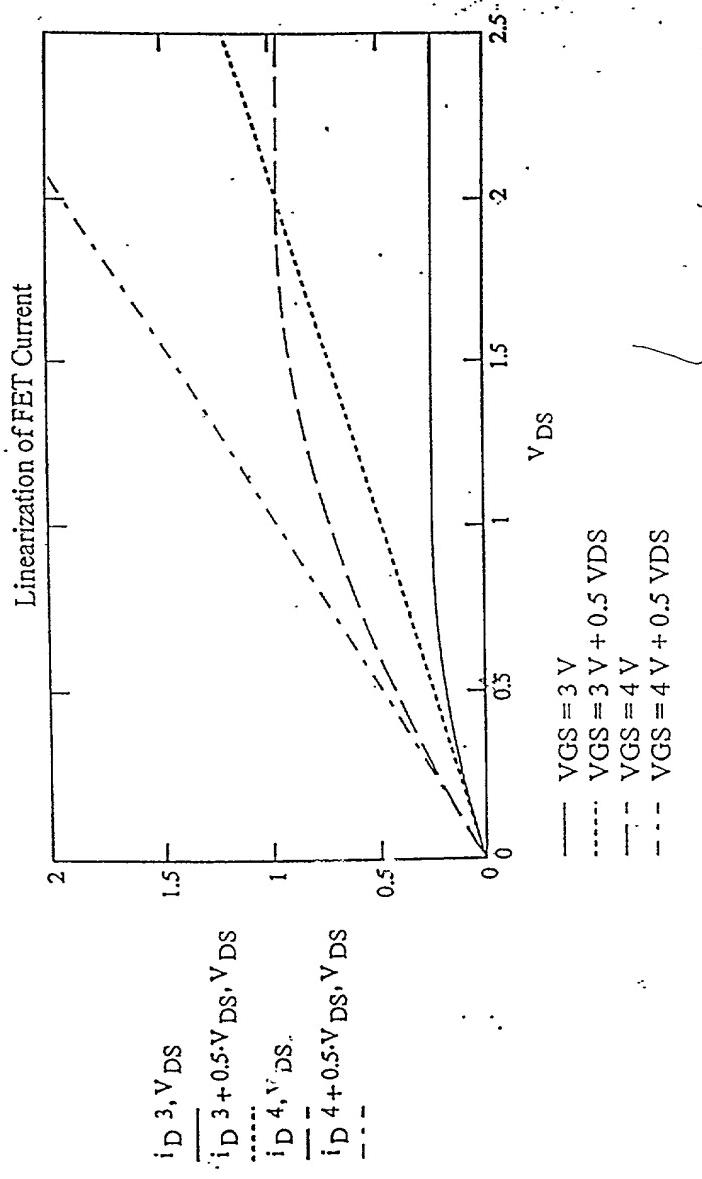
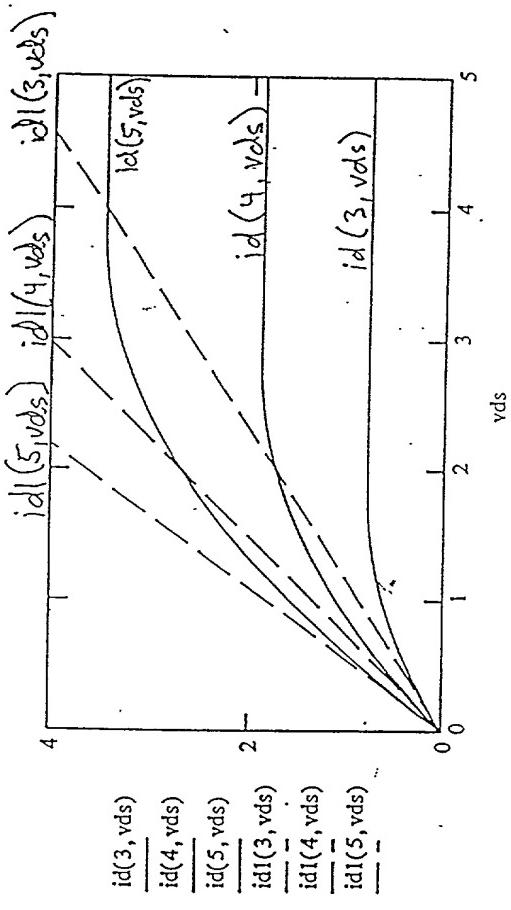
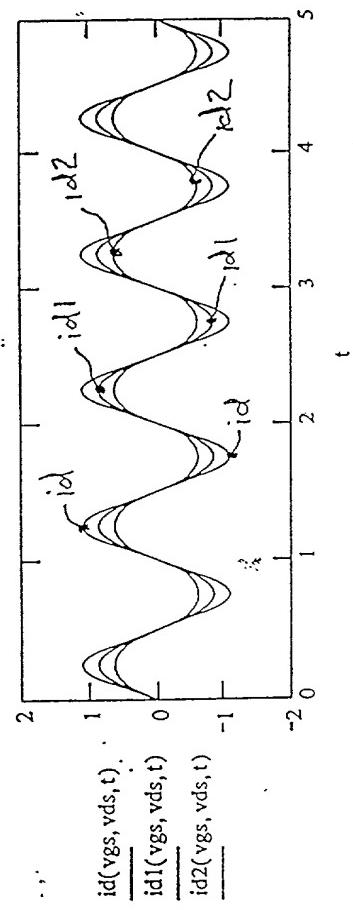


Fig. 46

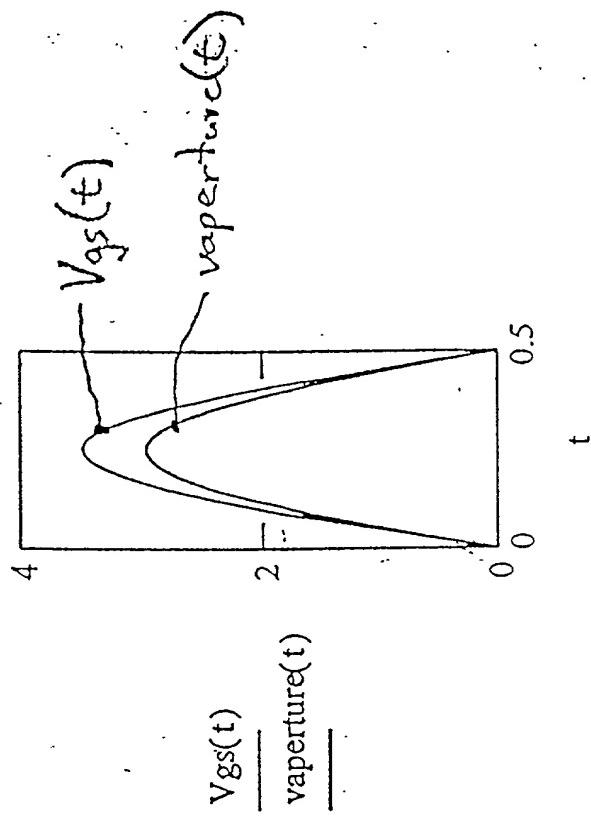


F16. 47

F16. 48

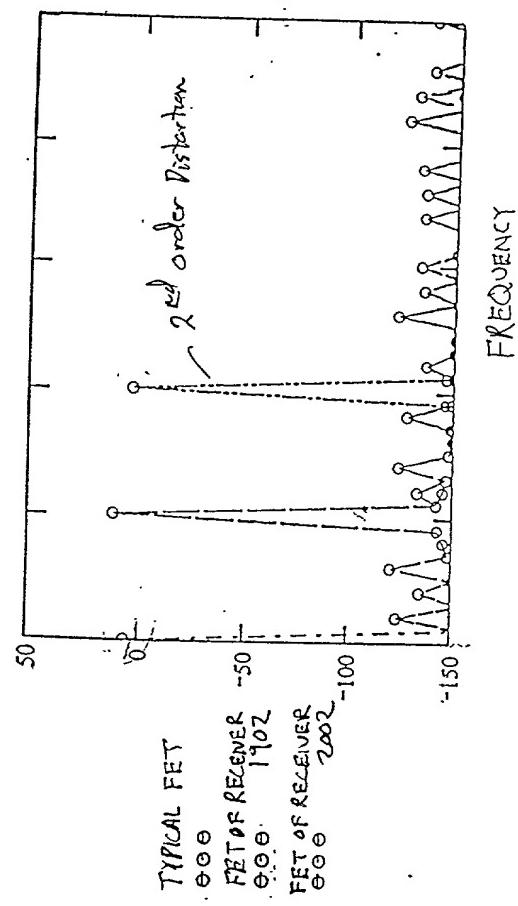


09355851 CES 60



F16. 49

FIG. 50



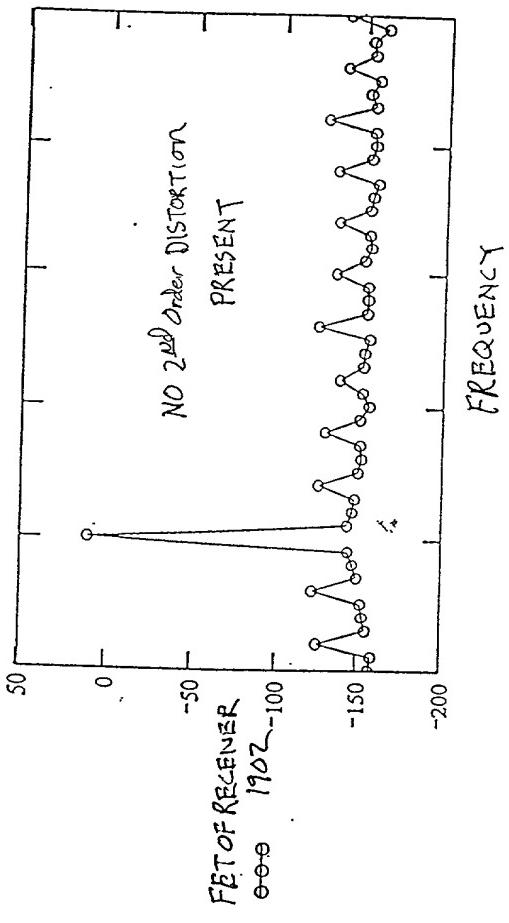


FIG. 51

0.9555555555555555

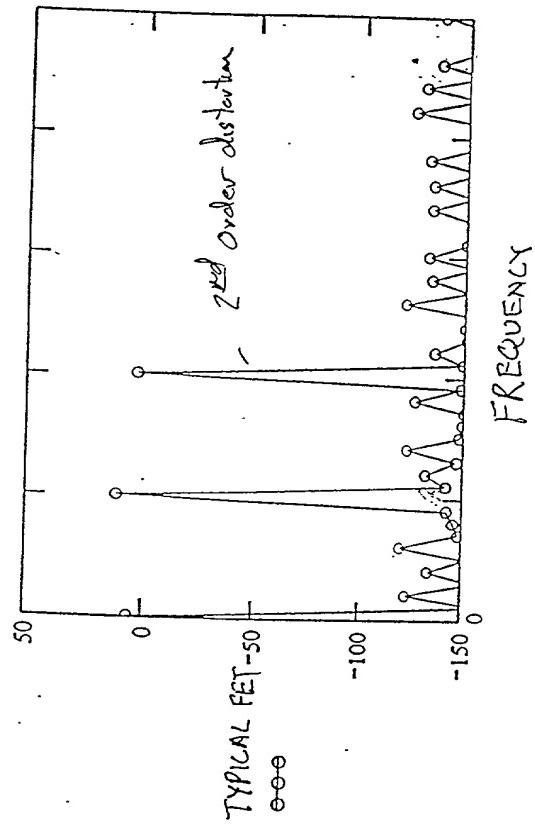
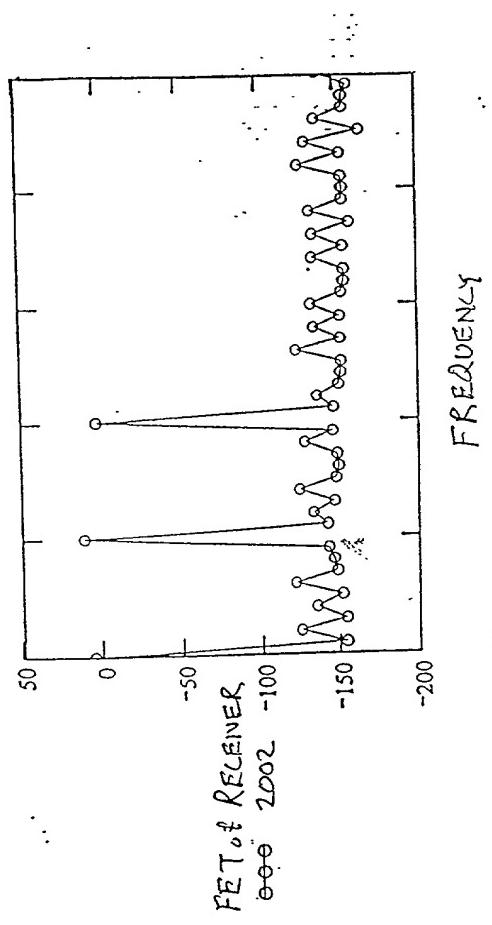


FIG. 52



F16 53

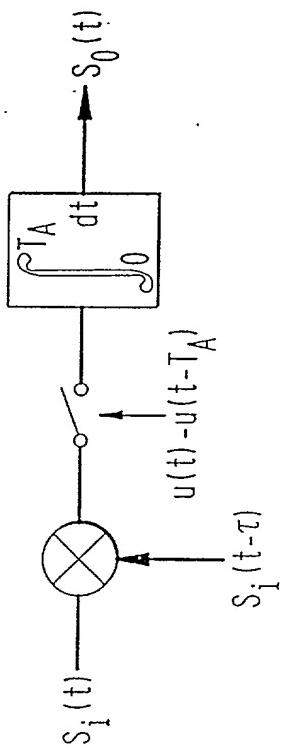


FIG. 54

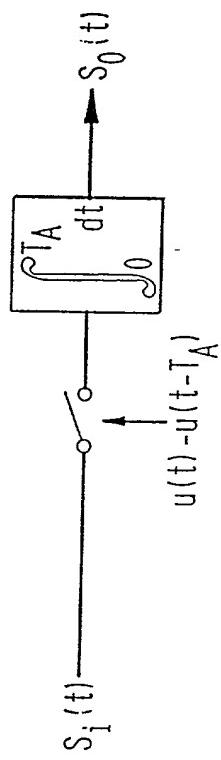
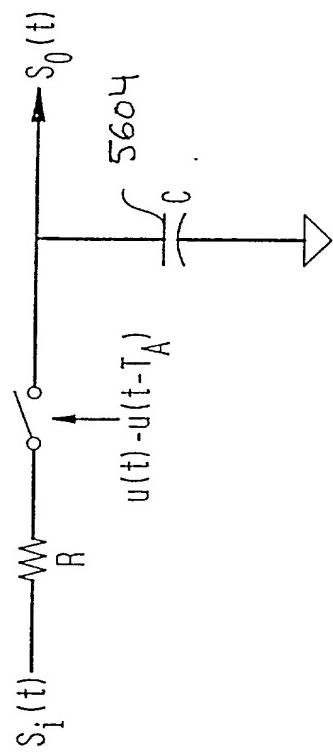


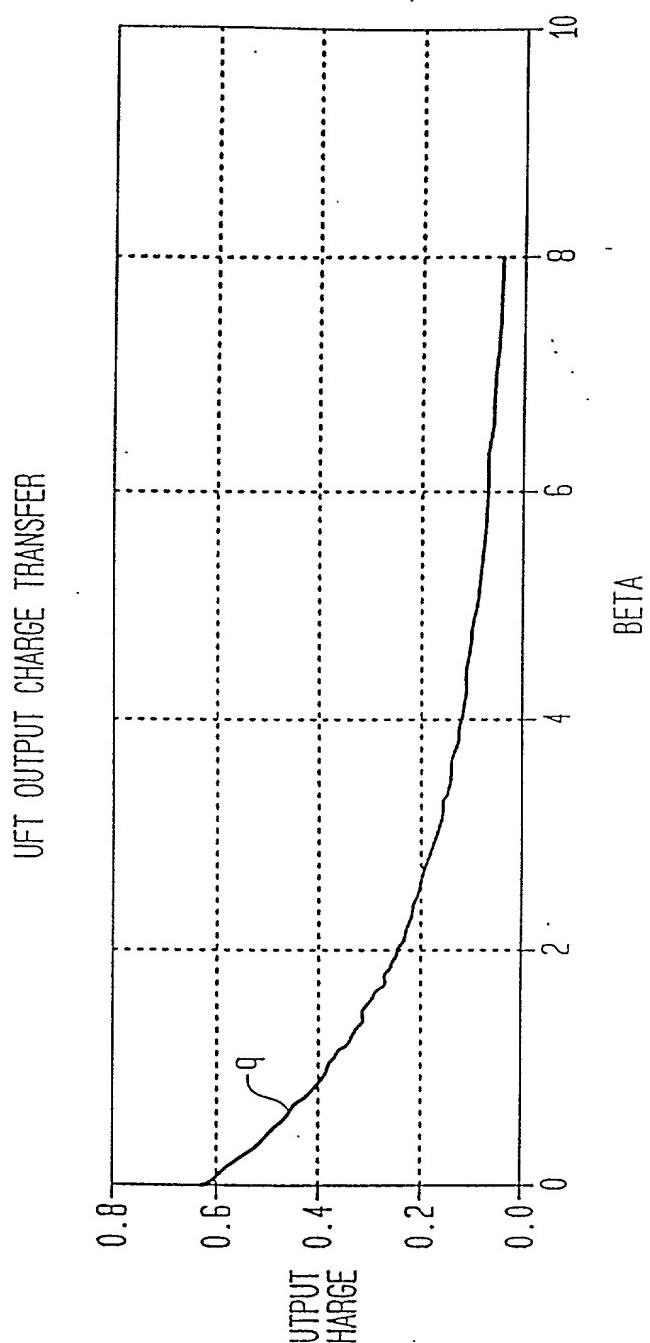
Fig. 55

0 0 0 0 0 0 0 0 0 0 0 0



F16. 56

FIG. 57



09655854 095460

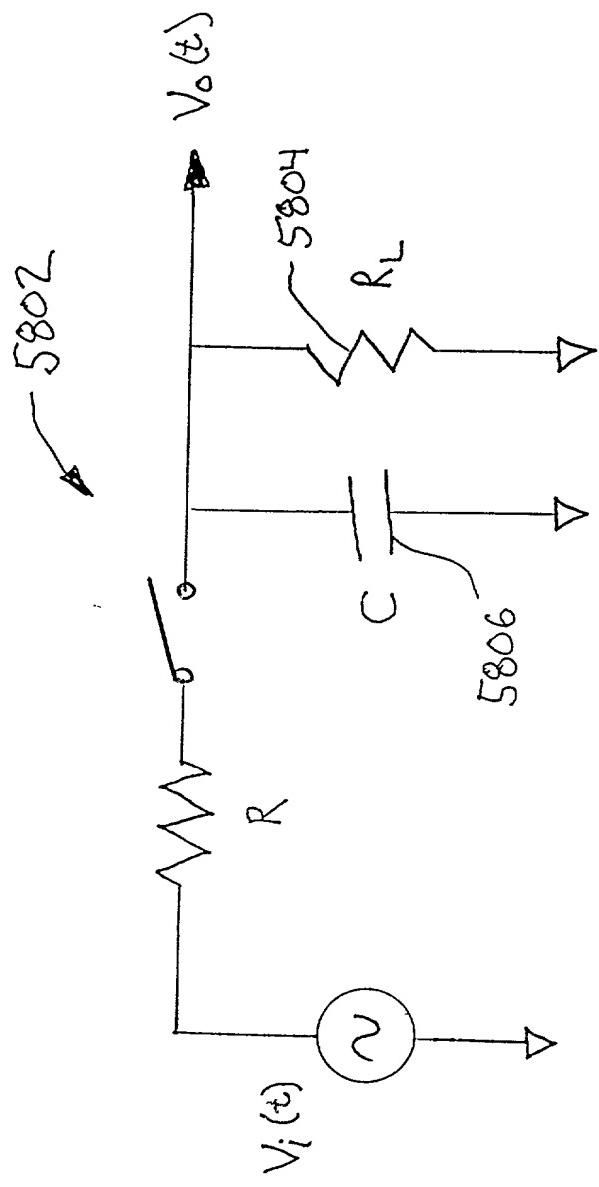


Fig. 58

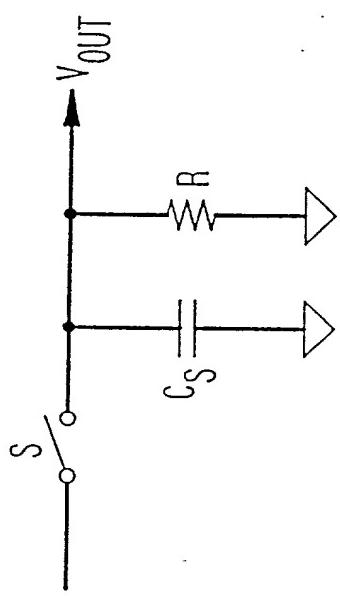


FIG. 59

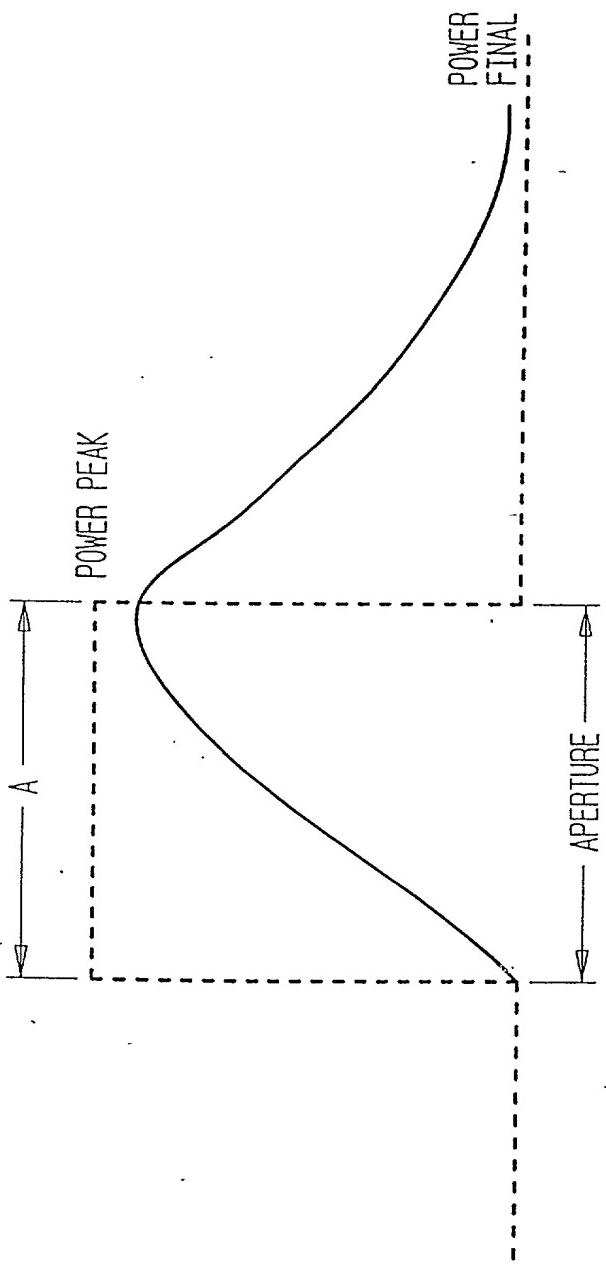
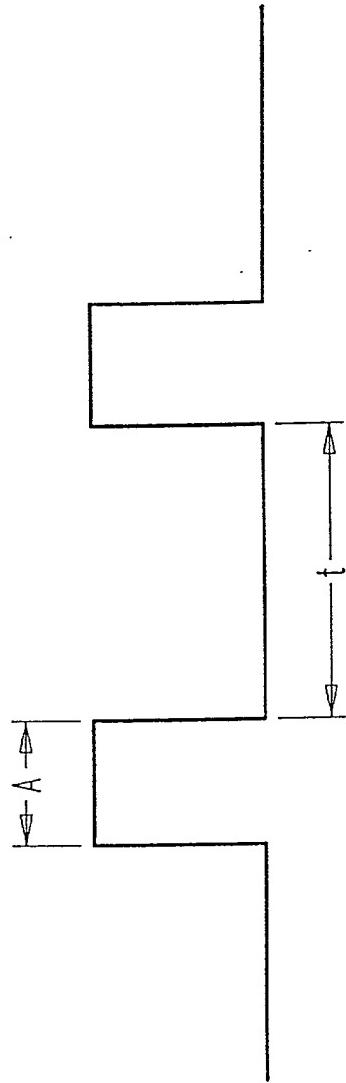


FIG. 60

FIG. 61



09355654 Quest 60

METHOD FOR DOWN-CONVERTING AN ELECTROMAGNETIC SIGNAL

6200

RECEIVE A RF INFORMATION SIGNAL

~6202

ELECTRICALLY COUPLE THE RF INFORMATION SIGNAL TO A CAPACITOR

~6204

CONTROL A CHARGING AND DISCHARGING CYCLE OF THE CAPACITOR WITH A SWITCHING DEVICE ELECTRICALLY COUPLED TO THE CAPACITOR

~6206

PERFORM A PLURALITY OF CHARGING AND DISCHARGING CYCLES OF THE CAPACITOR, THEREBY FORMING A DOWN-CONVERTED INFORMATION SIGNAL

~6208

END

~6210

FIG 62

09855351-0514504